

**U. S. Department of Energy
Federal Energy Technology Center**

3610 Collins Ferry Road
P.O. Box 880
Morgantown, WV 26507-0880

626 Cochran's Mill Road
P.O. Box 10940
Pittsburgh, PA 15236-0940



March 09, 1998

**EXECUTIVE SUMMARY LETTER
PROGRAM RESEARCH AND DEVELOPMENT ANNOUNCEMENT
DE-RA26-98BC15200**

Oil Technology R & D Program

To: Prospective Offerors

The purpose of this Executive Summary Letter is to highlight salient elements of the Program Research and Development Announcement (PRDA). This letter is not an integral part of the PRDA, which is a self-contained document. In the event of any conflict between the contents of the Executive Summary Letter and that of the PRDA, the PRDA language shall take precedence.

The primary mission of the DOE's National Oil Program is to conduct oil related research and development activities. The purpose is to expand the knowledge base through which industry can bring additional oil resources and new technology options into the marketplace in a cost-effective and environmentally acceptable manner. The general objective of this PRDA is to support research which supplements and complements, but does not duplicate or displace private and other public research and development efforts. Proposals should focus on cost effectively improving current technologies.

Through issuance of this PRDA, the Department of Energy's (DOE) National Petroleum Technology Office (NPTO) [formerly Bartlesville Project Office] has combined five (5) broad areas of interest that are oil related under a single solicitation. Additionally, each of these areas of interest has been further defined to address specific, stand alone technical topics as follows:

Area of Interest #1 - Advanced Diagnostics and Imaging Systems:

- Pore scale imaging,
- Wettability and imbibition,
- In-situ relative permeability, and
- Up-scaling techniques.

Area of Interest #2 - Production Research:

- Gas Flooding,
- Chemical Flooding,
- Microbial Flooding,
- Heavy Oil Recovery,
- Novel Processes, and
- Reservoir Simulation.

Area of Interest #3 - **Integrated Prospecting Concepts:**

- Modeling of dynamic sedimentary hydrocarbon systems, and
- Risk Assessment technology.

Area of Interest #4 - **Processing Research:**

- Pollution Prevention and
- PM_{2.5} Science-Based Regulations.

Area of Interest #5 - **Oil and Gas Environmental Research**

- Soil Remediation,
- Air Emissions,
- Innovative Waste and Produced Water Management, and
- Risk Assessment/Streamlining.

Proposals must be submitted for a specific technical topic (i.e., not a general Area of Interest). Therefore, proposers wishing to submit multiple proposals are required to prepare SEPARATE, STAND ALONE PROPOSALS FOR EACH TARGETED TECHNICAL TOPIC.

Anticipated Awards: The Government expects that between sixteen (16) to twenty-nine (29) contracts will result from this solicitation. It should be noted that each of the five areas of interest are funded individually and separately, moreover, the number of awards, value, and duration is provided in the Introductions of each individual Area of Interest (Ref. Part III, Section J, Attachment A, Paragraphs 3.1.1, 3.1.2, 3.1.3, 3.1.4, and 3.1.5).

Schedule of Selection/Awards: As previously stated, the areas of interest are separate and stand alone and thus it is possible that award selection for a specific Area of Interest could occur prior to the award selection of another Area of Interest. It is anticipated, however, that selections will be made for all areas of interest in the fourth quarter of FY-98 (i.e., July -Sept., 1998).

Eligibility: All responsible individuals, corporations, non-profit organizations, educational institutions, and state or local governments may submit proposals for consideration. Proposals which include performance at any level by DOE Management & Operating (M&O) Contractors or Federally Funded Energy Research Facilities (i.e., National Laboratories) are inappropriate for this competition and shall be determined ineligible for award.

Mandatory Cost-Share: Offerors are advised that a mandatory minimum cost-share of twenty (20) percent of the total estimated project cost is required. Proposers are therefore advised that if during the Qualification and Preliminary Review it is found that the offeror does not satisfy this cost share, the proposal will be disqualified and shall not be considered for award. Details pertaining to allowable/unallowable costs can be found in Section L.*. Foregone Fee is excluded from consideration for cost-sharing.

The Government does not anticipate providing any facilities or property for accomplishing this effort. Offerors are encouraged to propose utilization of existing facilities and to make allowances for providing all necessary personnel, facilities, equipment and materials to complete proposed projects. Proposals containing the use of Government Furnished Equipment/Government Furnished Property will be evaluated consistent with FAR 45.205, as described in Section L.*.

Proposals must be received by 4:00 PM local prevailing time, April 23, 1998 at:

U. S. DEPARTMENT OF ENERGY
NATIONAL PETROLEUM TECHNOLOGY OFFICE
WILLIAMS CENTER, TOWER ONE
ONE WEST 3RD STREET, SUITE 1658
TULSA, OK 74103
ATTN: DIANE FRANKLIN, CONTRACTS OFFICE

Late proposals, modifications and withdrawals will be treated in accordance with FAR 52.215-1 (see Section L of this PRDA).

Proposals received in response to this solicitation will be evaluated by a proposal evaluation panel in accordance with applicable DOE acquisition policies and procedures. Offerors are also advised to give particular attention to the evaluation criteria identified in Part V, Section M. Evaluation will be performed to determine the offeror's understanding of work to be performed, technical approach, potential for completing the work as specified in the solicitation, cost reasonableness, cost realism, and ranking with competitive offers. The Source Selection Official (SSO) will select a mix of proposals for award which best satisfy program objectives. Also, awards will be based on implementing a prioritized but balanced research program (i.e., application of Program Policy Factors per Section M.).

Any prospective offeror seeking an explanation or interpretation of the solicitation must request it in writing, in sufficient time to allow a reply to reach all prospective offerors before the submission of their offers (see section L of the PRDA). The information will be furnished as an amendment of the solicitation, if the information is necessary in submitting offers or if lack of it would be prejudicial to other prospective offerors. Amendments to this PRDA, if any, will be posted on the World Wide Web at: <http://www.fetc.doe.gov> (this is the new **"home page"** of the **Federal Energy Technology Center (FETC)**).

All communications concerning this PRDA shall cite the PRDA number (DE-RA26-98BC15200) and be directed in writing to the attention of:

MARTIN J. BYRNES, CONTRACT SPECIALIST
U. S. DEPARTMENT OF ENERGY
FEDERAL ENERGY TECHNOLOGY CENTER
P. O. BOX 10940, M.S. 921-143
PITTSBURGH, PA 15236-0940

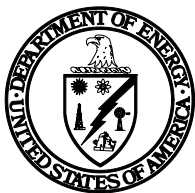
FAX: (412) 892-6216
E-MAIL: byrnes@fetc.doe.gov

Your interest in this solicitation is appreciated.

Sincerely,

/original signed by/

Keith R. Miles
Contracting Officer



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PROGRAM RESEARCH AND DEVELOPMENT ANNOUNCEMENT (PRDA)

NUMBER DE-RA26-98BC15200

Oil Technology R & D Program

| | |
|--|---|
| ISSUANCE DATE: | March 09, 1998 |
| CLOSING DATE: | April 23, 1998 4:00 P.M. |
| POINT OF CONTACT: | MARTIN J. BYRNES ACQUISITION & ASSISTANCE DIV. US DOE FETC P. O. BOX 10940, MS 921-143 PITTSBURGH, PA 15236-0940 |
| TELEPHONE: | 412/892-4486 |
| FACSIMILE: | 412/892-6216 |
| INTERNET: | byrnes@fetc.doe.gov |
| ADDRESS FOR SUBMISSION OF OFFERS: | U. S. DEPARTMENT OF ENERGY NATIONAL PETROLEUM TECHNOLOGY OFFICE WILLIAMS CENTER, TOWER ONE ONE WEST 3RD STREET, SUITE 1658 TULSA, OK 74103 ATTN: DIANE FRANKLIN, CONTRACTS OFFICE |

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| | | | | | | | |
|---|--|--|--|--|--|---|--|
| SOLICITATION, OFFER AND AWARD | | 1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700) ▶ | | RATING | | PAGE 1 OF 1 PAGES | |
| 2. CONTRACT NO. N/A | | 3. SOLICITATION NO. DE-RA26-98BC15200 | | 4. TYPE OF SOLICITATION <input type="checkbox"/> SEALED BID (IFB) <input checked="" type="checkbox"/> NEGOTIATED (PRDA) | | 5. DATE ISSUED March 09, 1998 | |
| | | | | | | 6. REQUISITION/PURCHASE NO. 26-98BC15200.000 | |
| 7. ISSUED BY U.S. DEPARTMENT OF ENERGY, FEDERAL ENERGY TECHNOLOGY CENTER P. O. BOX 10940, MS 921-143, 626 COCHRANS MILL ROAD, PITTSBURGH, PA 15236-0940 | | CODE 2208 | | 8. ADDRESS OFFER TO (If other than Item 7) U. S. DEPARTMENT OF ENERGY NATIONAL PETROLEUM TECHNOLOGY OFFICE WILLIAMS CENTER, TOWER ONE ONE WEST 3RD STREET, SUITE 1658 TULSA, OK 74103 ATTN: DIANE FRANKLIN, CONTRACTS OFFICE | | | |

NOTE: In sealed bid solicitations, "offer" and "offeror" mean "bid" and "bidder."

SOLICITATION

9. Sealed offers in original and see L.7. copies for furnishing the supplies or services in the Schedule will be received at the place specified in Item 8, or if handcarried, in the depository located in Above address (block 8) until 4:00 PM local time 04/23/98.
(Hour) (Date)

CAUTION — LATE Submissions, Modifications, and Withdrawals: See Section L, Provision No. 52.214-7 or 52.215-1. All offers are subject to all terms and conditions contained in this solicitation.

| | | |
|-----------------------------|--|--|
| 10. FOR INFORMATION CALL: ▶ | A. NAME : MARTIN J. BYRNES, CONTRACT SPECIALIST (byrnes@fetcd.doe.gov) | B. TELEPHONE NO. (Include area code) (NO COLLECT CALLS) (412) 892-4486 FAX (412) 892-6216 |
|-----------------------------|--|--|

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OFFER (Must be fully completed by offeror)

NOTE: Item 12 does not apply if the solicitation includes the provisions at 52.214-16, Minimum Bid Acceptance Period.

12. In compliance with the above, the undersigned agrees, if this offer is accepted within 180 calendar days (60 calendar days unless a different period is inserted by the offeror) from the date for receipt of offers specified above, to furnish any or all items upon which prices are offered at the price set opposite each item, delivered at the designated point(s), within the time specified in the schedule.

| | | | | |
|---|--------------------|--------------------|--------------------|-----------------|
| 13. DISCOUNT FOR PROMPT PAYMENT (See Section I, Clause No. 52.232-8) ▶ | 10 CALENDAR DAYS % | 20 CALENDAR DAYS % | 30 CALENDAR DAYS % | CALENDAR DAYS % |
|---|--------------------|--------------------|--------------------|-----------------|

| | | | | |
|--|---------------|------|---------------|------|
| 14. ACKNOWLEDGMENT OF AMENDMENTS (The offeror acknowledges receipt of amendments to the SOLICITATION for offerors and related documents numbered and dated: | AMENDMENT NO. | DATE | AMENDMENT NO. | DATE |
| | | | | |
| | | | | |

| | | | |
|----------------------------------|------|----------|---|
| 15A. NAME AND ADDRESS OF OFFEROR | CODE | FACILITY | 16. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER (Type or print) |
|----------------------------------|------|----------|---|

| | | | |
|--|---|---------------|----------------|
| 15B. TELEPHONE NO. (Include area code) | 15C. CHECK IF REMITTANCE ADDRESS IS DIFFERENT FROM ABOVE — ENTER SUCH ADDRESS IN SCHEDULE <input type="checkbox"/> | 17. SIGNATURE | 18. OFFER DATE |
|--|---|---------------|----------------|

AWARD (To be completed by Government)

| | | | |
|---|------------|---|----------------|
| 19. ACCEPTED AS TO ITEMS NUMBERED | 20. AMOUNT | 21. ACCOUNTING AND APPROPRIATION | |
| 22. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION: <input type="checkbox"/> 10 U.S.C. 2304(c) () <input type="checkbox"/> 41 U.S.C. 253(c) () | | 23. SUBMIT INVOICES TO ADDRESS SHOWN IN (4 copies unless otherwise specified) ▶ | |
| 24. ADMINISTERED BY (If other than Item 7) CODE | | 25. PAYMENT WILL BE MADE BY CODE | ITEM |
| 26. NAME OF CONTRACTING OFFICER (Type or print) | | 27. UNITED STATES OF AMERICA (Signature of Contracting Officer) | 28. AWARD DATE |

IMPORTANT — Award will be made on this Form, or on Standard Form 26, or by other authorized official written notice.

PART I

SECTION B - SUPPLIES, SERVICES, AND PRICES

B.1 ITEMS BEING ACQUIRED

The Contractor shall furnish all personnel, facilities, equipment, material, supplies, and services (except as may be expressly set forth in this contract as furnished by the Government) and otherwise do all things necessary for, or incident to, the performance of the following items of work:

Item 1 -- Research entitled “[TBD]” in accordance with Part III, Section J, Attachment A, Statement of Work.

Item 2 -- Reports prescribed in "Reporting Requirements Checklist (DOE F 1332.1)" in accordance with Part III, Section J, Attachment B.

B.2 COST SHARING ARRANGEMENT

(a) The total estimated cost is \$[TBD], based upon the following cost sharing percentages.

| | | |
|------------|----------|---------|
| Government | \$ [TBD] | [TBD]% |
| Contractor | \$ [TBD] | [TBD]% |
| Total | \$ [TBD] | 100.00% |

(b) The cost participation formulas stipulated under this clause shall be applied to actual allowable contract costs incurred as a whole rather than to any individual element of cost. As stipulated in Section G. 7, Billing Instructions, the cost sharing ratio established in this contract will be applied to each and every invoice.

(c) In its vouchers and contract cost and/or financial reports, the Contractor shall separately identify: 1) the total allowable costs incurred, 2) the allowable costs incurred to be borne by the Government (dollars and percentages), and 3) the allowable costs to be borne by the Contractor (dollars and percentages) (see Part III, Section J, Attachment C, Billing Instructions).

(d) Cost Sharing of Cost Overruns. The Government funding of cost overruns is subject to availability of funds and FAR 52.232-22 "Limitation of Funds". While it is the purpose of this contract to complete all work within the funds provided in the original or amended award amount, it is hereby agreed that the provision of any funds for the financing or reimbursement of any allowable and allocable cost overruns, which may be incurred in the performance of this contract, shall be subject to cost sharing by the Government and Contractor in accordance with the respective percentages indicated in paragraph (a) above.

The Contractor shall not be obligated to continue performance under the contract (including actions under the termination clause) or otherwise to incur cost in excess of the estimated

total cost unless and until the Contracting Officer shall have modified the contract to fund the Government's share.

- (e) Fee. No fee shall be payable to the contractor for the performance of work under any Item of this contract.
- (f) Notwithstanding the Contractor's sharing in the allowable costs to be incurred under this contract, the Government shall have the same rights under this contract as if the Government had borne one-hundred percent (100%) of the allowable costs of performance.

B.3 CONTRACTOR/THIRD PARTY IN-KIND CONTRIBUTIONS

- (a) The value of in-kind contributions donated by the contractor and/or third party contributors is established in B.4, below.
- (b) In-kind contributions (i.e. services, facility use, etc.) shall be identified on each invoice submitted by the contractor only for the period in which these donated services are actually utilized in performance of this project.
- (c) Maximum values are established in B.4, below, for each in-kind contribution that will be donated toward this project. This maximum amount cannot be exceeded without prior written approval of the Contracting Officer.
- (d) The Contractor shall be required to maintain the same accounting records and the Government shall have the same rights to audit all Clause B.4 costs associated with these Contractor and/or third party in-kind contributions in this contract.

B.4 VALUATION OF IN-KIND CONTRIBUTIONS

The Contractor shall, as their in-kind contribution under this contract, provide and furnish the following items as necessary to perform the Statement of Work (Part III, Section J, Attachment A):

[TBD]

The value of these in-kind contributions have been established in accordance with the DEAR 917.70, Cost Participation.

SECTION C - DESCRIPTION/SPECIFICATION/STATEMENT OF WORK

C.1 STATEMENT OF WORK

The Statement of Work is located in Part III, Section J, Attachment A to this contract.

C.2 ITEM DESCRIPTION

Item 1 - Research entitled, "[TBD]," in accordance with Part III, Section J, Attachment A, Statement of Work.

Item 2 - Reports as prescribed in the "Reporting Requirements Checklist (DOE F 1332.1)," Part III, Section J, Attachment B.

SECTION D - PACKAGING AND MARKING

D.1 PACKAGING

Preservation, packaging, and packing for shipment or mailing of all work delivered hereunder shall be in accordance with good commercial practice and adequate to insure acceptance by common carrier and safe transportation at the most economical rate(s).

D.2 MARKING

All correspondence will reference the contract number [TBD].

All reports shall be marked in accordance with the "Reporting Requirements Checklist (DOE F 1332.1)," Part III, Section J, Attachment B.

SECTION E - INSPECTION AND ACCEPTANCE

E.1 CLAUSES INCORPORATED BY REFERENCE

FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1) CLAUSES

| NUMBER | DATE | TITLE |
|--------|------|-------|
|--------|------|-------|

| | | |
|----------|----------|---|
| 52.246-5 | APR 1984 | INSPECTION OF SERVICES - COST-REIMBURSEMENT |
|----------|----------|---|

E.2 INSPECTION

Inspection of all items under this contract shall be accomplished by the DOE Contracting Officer's Representative (see PART I - SECTION G), or any other duly authorized Government representative.

E.3 ACCEPTANCE

Final acceptance of all work and effort under this contract shall be accomplished by the Contracting Officer.

SECTION F - DELIVERIES OR PERFORMANCE

F.1 CLAUSES INCORPORATED BY REFERENCE

FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1) CLAUSES

| NUMBER | DATE | TITLE |
|-----------|----------|--|
| 52.242-15 | AUG 1989 | STOP-WORK ORDER Alternate I (APR 1984) |

F.2 PERIOD OF PERFORMANCE

The work to be performed hereunder shall commence on the effective date of the contract and shall continue for [TBD]. This includes time for submission of all required reports, review of those reports by DOE, and submission of the approved final report by the Contractor.

F.3 PRINCIPAL PLACE OF PERFORMANCE

The principal location of performance under this contract shall be at the Contractor's facility located in [TBD].

SECTION G - CONTRACT ADMINISTRATION

G.1 CORRESPONDENCE PROCEDURES

To promote timely and effective administration, correspondence (except for invoices and reports) submitted under this contract shall be subject to the following procedures:

- (a) Technical Correspondence. Technical correspondence (as used herein, this term excludes technical correspondence where patent or technical data issues are involved and correspondence which proposes or otherwise involves waivers, deviations, or modifications to the requirements, terms, or conditions, of this contract) shall be addressed to the DOE Contracting Officer's Representative, with an information copy of the correspondence to the DOE Contract Specialist.
- (b) Property Correspondence. Property correspondence (as used herein, this term includes correspondence which addresses matters which relate to property issues which come under the contract's Government property provisions) shall be addressed to the DOE Property Administrator, with information copies of the correspondence to the DOE Contracting Officer's Representative and the DOE Contract Specialist.
- (c) Indirect Rate Correspondence. All correspondence relating to the establishment, revision, and negotiation of billing and final indirect cost rates shall be addressed to the Contracting Officer for Indirect Cost Rate Management (see Clause G.6), with information copies of the correspondence to the DOE Contract Specialist.
- (d) Other Correspondence. All other correspondence shall be addressed to the Contract Specialist, with information copies of the correspondence to the DOE Contracting Officer's Representative, the DOE Intellectual Property Counsel (where patent or technical data issues are involved), and the DOE Property Administrator (where Government Property issues are involved).
- (e) Contract Specialist's Address. The Contract Specialist's address and telephone number are as follows:

U. S. Department of Energy
Federal Energy Technology Center
[TBD]
[TBD]
Attention: [TBD], Contract Specialist

Telephone: [TBD]
FAX: [TBD]
INTERNET: [NAME]@fetc.doe.gov

- (f) Subject Line(s). All correspondence shall contain a subject line commencing with the contract number, as illustrated below:

SUBJECT: Contract No. DE-AC26-[TBD]
(Request should identify specific contract action.)

G.2 DOE CONTRACT SPECIALIST FOR POST-AWARD ADMINISTRATION

The DOE Contract Specialist is designated in paragraph G.1(e), above. The Contractor shall use the Contract Specialist as the point of contact on all but technical, property, and indirect cost rate matters (see G.1(a), G.1(b), and G.1(c), above, for definitions).

G.3 DOE CONTRACTING OFFICER'S REPRESENTATIVE (COR) FOR POST-AWARD ADMINISTRATION

The DOE Contracting Officer's Representative's address and telephone number are provided below. The Contractor shall use the DOE Contracting Officer's Representative as the point of contact on technical matters (see G.1(a) and H.3).

U. S. Department of Energy
Federal Energy Technology Center
[TBD]
Attn: [TBD], Contracting Officer's Representative
Telephone: [TBD]
FAX: [TBD]
INTERNET: [TBD]@fetc.doe.gov

G.4 DOE PROPERTY ADMINISTRATOR FOR POST AWARD ADMINISTRATION

The DOE Property Administrator, address, and telephone number are provided below. The Contractor shall use the Property Administrator as the point of contact on property matters (see G.1(b), above, for definition).

U. S. Department of Energy
Federal Energy Technology Center
[TBD]
Attn: [TBD], Property Administrator
Telephone: [TBD]
FAX: [TBD]
INTERNET: [TBD]@fetc.doe.gov

G.5 DOE INTELLECTUAL PROPERTY COUNSEL

The mailing address for information copies to the DOE Intellectual Property Counsel is:

U. S. Department of Energy
Office of Intellectual Property Law
Chicago Operations Office
9800 South Cass Avenue
Argonne, IL 60439

G.6 CONTRACTING OFFICER FOR INDIRECT COST RATE MANAGEMENT

The Contracting Officer for Indirect Cost Rate Management, address, and telephone number are provided below. The Contractor shall use this individual as the point of contact for all matters regarding billing and final indirect cost rates.

U.S. Department of Energy
Federal Energy Technology Center
[TBD]
Attn: [TBD], Contracting Officer for Indirect Rates
Telephone: [TBD]
FAX: [TBD]
INTERNET: [TBD]@fetc.doe.gov

G.7 BILLING INSTRUCTIONS - COST-TYPE CONTRACT

The Contractor, in accordance with the Billing Instructions identified in Part III, Section J, Attachment C and other applicable provisions of this contract, shall submit the original signed voucher (supported by the Statement of Cost) to:

U.S. Department of Energy
Oak Ridge Financial Service Center
P.O. Box 4967
Oak Ridge, TN 37831
Phone: 423/576-1651 or 1-888/251-3557

In addition, two copies of the signed voucher (each supported by a copy of the Statement of Cost) shall be submitted to:

Commercial Payments
U.S. Department of Energy
Federal Energy Technology Center
P.O. Box 10940, MS 921-143
Pittsburgh, PA 15236-0940

In accordance with the Prompt Payment Act, all invoices submitted shall include the following information:

1. Name of contractor/vendor and invoice date.
2. Contract Number, or other authorization for delivery of property or services.
3. Description, price and quantity of property and services actually delivered or rendered.
4. Shipping and payment terms.
5. Other substantiating documentation or information as required by the contract.
6. Name (where practicable), title, phone number and complete mailing address of responsible official to whom payment is to be sent.
7. Each invoice must be submitted with a Standard Form 1034 as its cover sheet. The SF 1034 must be supported by a Statement of Cost and adequate supporting documentation for each direct cost element for which reimbursement is requested.
8. The cost sharing or in-kind contributions incurred by the Contractor and/or third party during the billing period must be included in the invoiced amount and adequately supported.

Invoices that are determined to be defective under the above criteria, and therefore not suitable for payment, shall be returned to the Contractor as soon as practicable, specifying the reasons why the invoice is not proper.

G.8 DEFECTIVE OR IMPROPER INVOICES

Name (where practicable), title, phone number, office name, and complete mailing address of officials of the business concern to be notified when the Government receives a defective or improper invoice.

[TBD - data to be provided by successful offeror prior
to award]

G.9 NOTICE OF INVOICE PROCESSING BY SUPPORT CONTRACTOR

A support service contractor performs the function of processing of all invoices submitted to the Federal Energy Technology Center [Pittsburgh Office] against its awards. Therefore, this contractor has access to your business confidential cost/rate information. A special provision in this contractor's award requires the confidential treatment by all contractor employees of any and all business confidential information of other contractors and financial assistance recipients to which they have access. The contract employees sign non-disclosure agreements and the contractor is legally responsible for any actions arising as a result of disclosure of confidential information by its employees.

G.10 INDIRECT RATES - BILLING

In accordance with the terms of this contract, indirect costs (i.e. fringe benefits, overhead, and general & administrative expenses) are to be reimbursed on the basis of billing rates approved by the Contracting Officer, pending establishment of final indirect cost rates. The commercial payments system utilized to process invoices maintains the approved billing rates and compares the approved rates to those invoiced. An invoice which does not utilize the approved billing rates will be flagged by the system and payment will be delayed pending resolution.

G.11 INDIRECT RATES - FINAL

The "Allowable Cost and Payment" clause, FAR 52.216-7, contained in this contract (Part II, Section I) requires the Contractor to submit its final indirect cost rate proposal within the 6-month period following the expiration of each of its fiscal years to the Contracting Officer responsible for negotiating the final indirect cost rates. If the Contracting Officer for Indirect Cost Rate Management (as identified in Clause G.6) is responsible to negotiate final rates with the Contractor, then the incurred cost submission for each fiscal year should be submitted to his address.

SECTION H - SPECIAL PROVISIONS

H.1 TRAVEL AND PER DIEM COSTS

Costs incurred by contractor personnel for travel, including costs of lodging, other subsistence, and incidental expenses, shall be considered to be reasonable and allowable only to the extent that they do not exceed the rates and amounts set by Subchapter I of Chapter 57 of Title 5, United States Code, or by the Administrator of General Services or the President (or his designee) pursuant to any revision of such subchapter; and are allowable pursuant to the "Allowable Cost and Payment" clause, FAR 52.216-7, contained in this contract (Part II, Section I).

Foreign travel shall be subject to DEAR 952.247-70 (PART II, Section I).

H.2 LIMITATION OF FUNDS -- COST SHARING

Pursuant to the clause entitled "Limitation of Funds," total funds in the amount of \$ [TBD] are obligated herewith and made available for payment of the Government's share of allowable costs to be incurred from the effective date of this contract through the period estimated to end [TBD].

H.3 TECHNICAL DIRECTION

- (a) Performance of the work under this contract shall be subject to the technical direction of DOE Contracting Officer's Representative identified elsewhere in this contract. The term "technical direction" is defined to include, without limitation:
 - (1) Directions to the Contractor which redirect the contract effort, shift work emphasis between work areas or tasks, require pursuit of certain lines of inquiry, fill in details or otherwise serve to accomplish contractual Statement of Work.
 - (2) Provision of written information to the Contractor which assists in the interpretation of drawings, specifications or technical portions of the work description.
 - (3) Review, and where required by the contract, approval of technical reports, drawings, specifications and technical information to be delivered by the Contractor to the Government under the contract.
- (b) Technical direction must be within the scope of work stated in the contract. The DOE Contracting Officer's Representative does not have the authority to, and may not, issue any technical direction which:
 - (1) Constitutes an assignment of additional work outside the Statement of Work;
 - (2) Constitutes a change as defined in the contract clause entitled "Changes";

- (3) In any manner causes an increase or decrease in the total estimated contract cost, or the time required for contract performance;
 - (4) Changes any of the expressed terms, conditions or specifications of the contract; or
 - (5) Interferes with the Contractor's right to perform the terms and conditions of the contract.
- (c) All technical directions shall be issued in writing by the DOE Contracting Officer's Representative.
- (d) The Contractor shall proceed promptly with the performance of technical directions duly issued by the DOE Contracting Officer's Representative in the manner prescribed by this article and within his authority under the provisions of this article. If, in the opinion of the Contractor, any instruction or direction by the DOE Contracting Officer's Representative falls within one of the categories defined in (b)(1) through (5) above, the Contractor shall not proceed but shall notify the Contracting Officer in writing within five (5) working days after receipt of any such instruction or direction and shall request the Contracting Officer to modify the contract accordingly. Upon receiving the notification from the Contractor, the Contracting Officer shall:
 - (1) Advise the Contractor in writing within thirty (30) days after receipt of the Contractor's letter that the technical direction is within the scope of the contract effort and does not constitute a change under the "Changes" clause of the contract;
 - (2) Inform the Contractor in writing within thirty (30) days after receipt of the Contractor's letter not to perform under the direction and to cancel the direction; or
 - (3) Advise the Contractor within a reasonable time that the Government will issue a written change order.
- (e) A failure of the Contractor and Contracting Officer to agree that the technical direction is within the scope of the contract, or a failure to agree upon the contract action to be taken with respect thereto shall be subject to the provisions of FAR 52.233-1, "Disputes," of the Contract Clauses (PART II-SECTION I).

H.4 MODIFICATION AUTHORITY

Notwithstanding any of the other provisions of this contract, the Contracting Officer shall be the only individual authorized to:

- (a) accept nonconforming work,
- (b) waive any requirement of this contract, or
- (c) modify any term or condition of this contract.

H.5 GOVERNMENT PROPERTY AND DATA

- (a) Except as otherwise authorized by the Contracting Officer in writing, the Contractor is not authorized to acquire as a direct charge item under this contract any equipment (including office equipment), furniture, fixtures or other personal property items.
- (b) Acquisition Authorization Requirements
 - (1) In the course of performance of this contract, the Contractor may only acquire and direct charge to this contract such equipment (including office equipment), furniture, or other personal property items as have been specifically authorized by the Contracting Officer by inclusion of such items on the "List of Government Property -- Contractor Acquired" (Part III -- Section J, Attachment D) to this contract.
 - (2) The Contractor may request authorization for acquisition of additional items from the Contracting Officer. Any such request shall include an analysis of the most economical method of acquisition (e.g., lease versus purchase) and shall describe the material equity arising from any proposed lease arrangement, such as option credits.
 - (3) Any changes in the acquisition authorization shall be reflected in a modification to this contract which revises the "List of Government Property -- Contractor Acquired" (Part III -- Section J, Attachment D) to this contract.
 - (4) Authorization to acquire does not constitute consent to the placement of a subcontract.
- (c) Government-Furnished Property and Data

Except as otherwise authorized by the Contracting Officer in writing, only that property and data specifically included in the "List of Government-Furnished Property/Facilities" (Part III -- Section J, Attachment E) to the contract, shall be furnished.

H.6 KEY PERSONNEL/PROGRAM MANAGER

- (a) The Key Personnel, which includes the Program Manager, specified below, are considered to be essential to the work being performed under this award; moreover, any changes to these personnel require prior DOE Contracting Officer's written approval.
- (b) The Program Manager shall serve as the Contractor's authorized supervisor for technical and administrative performance of all work hereunder. The Program Manager shall receive and execute, on behalf of the Contractor, such technical directions as the DOE Contracting Officer's Representative may issue within the terms and conditions of the contract.

- (c) The following is a list of key personnel that have been approved for this contract:

| <u>Name</u> | <u>Position</u> |
|-------------|-----------------|
| TBD | Program Manager |

- (d) Prior to diverting any of the specified individuals, the contractor shall notify the Contracting Officer not less than thirty (30) days prior to the diversion or substitution of key personnel and shall submit a written justification (including qualifications of proposed substitutions) to permit evaluation. These proposed changes will be approved in writing at the sole discretion of the Contracting Officer, with the concurrence of the Contracting Officer's Representative.

H.7 PRIOR APPROVAL REQUIREMENTS FOR PLACEMENT OF SUBCONTRACTS/CONSULTANTS

- (a) The Contractor shall obtain the Contracting Officer's written consent before placing any subcontract, including consultants, for which advance notification is required under FAR 52.244-2 "Subcontracts (Cost Reimbursement and Letter Contracts)".

Any request for subcontract/consultant approval shall include the elements prescribed by FAR 52.244-2, Paragraph (b)(2), including completed subcontractor/consultant Representations and Certifications. For consultants the Contractor will obtain and furnish information supporting the need for and selection of such consultant services and the reasonableness of the fees to be paid, including, but not limited to, whether fees to be paid to any consultant exceed the lowest fee charged by such consultant to others for performing consulting services of a similar nature.

- (b) Except as may be expressly set forth therein, any consent by the Contracting Officer to the placement of subcontracts and/or consultants shall not be construed to constitute approval of the subcontract terms or conditions, determination of the allowability of any cost, revision of this contract or any of the respective obligations of the parties thereunder, or creation of any subcontractor privity of contract with the Government.
- (c) The Contractor is hereby given conditional consent to the placement of the following subcontractors, including consultants:

[TBD]

Notwithstanding this consent, the Contractor shall ensure compliance with Paragraphs (a) and (b) above. Also, since these subcontracts and/or consultants have as a purpose the conduct of research, development and demonstration work, they must additionally contain all applicable Patent and Data clauses contained in Part II, Section I.

H.8 REPRESENTATIONS AND CERTIFICATIONS

The “Representations, Certifications and Other Statements of the Offeror,” dated [TBD] for this contract are hereby incorporated by reference.

H.9 SUBCONTRACTOR FACILITIES CAPITAL COST OF MONEY

- (a) To the extent a subcontractor proposes to recover as an element of proposed cost any Facilities Capital Cost of Money (FCCOM) from a higher tier subcontractor or from the prime contractor, the FCCOM cost principle (FAR 31.205-10) shall apply to subcontracts and new scope modifications issued thereto which are fee bearing cost reimbursement type or negotiated fixed price type.
- (b) To the extent a subcontractor is eligible to recover yet does not propose as an element or proposed cost any Facilities Capital Cost of Money (FCCOM) from a higher tier subcontractor or from the prime contractor, the higher tier subcontractor or the prime contractor shall insert the following provision in any such subcontract or new scope modification issued thereto:

Waiver of Facilities Capital Cost of Money (FAR 52.215-17, OCT 1997)

The Contractor did not include facilities capital cost of money as a proposed cost of this contract. Therefore, it is an unallowable cost under this contract.

- (c) The Contractor agrees to insert the substance of this clause, including this paragraph (c) altered as necessary for proper identification of the parties, in any subcontract placed hereunder which is a fee bearing cost reimbursement or negotiated fixed price type.

H.10 COMPLIANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL REQUIREMENTS

In performing work under this contract, the Contractor shall comply with all relevant federal, state, and local statutes, ordinances, laws, and regulations.

H.11 NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) -- PRIOR APPROVALS

The National Environmental Policy Act of 1969 (NEPA) requires that all federal agencies consider the impacts of their projects on the human environment. As part of the DOE's NEPA requirements, the awardee shall be required to supply to the DOE certain environmental information. DOE funds may not be expended on [TBD] until the DOE notifies the awardee that all NEPA requirements have been satisfied. The awardee however, may expend its funds on these activities at its own risk.

PART II - CONTRACT CLAUSES

SECTION I - CONTRACT CLAUSES

I.1 52.252-2 CLAUSES INCORPORATED BY REFERENCE. (FEB 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es):

FAR:

<http://www.arnet.gov/far/>

DEAR:

<http://www.pr.doe.gov/pr6.html>

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|-------------|------------------------|-----------------|---|
| I.2 | FAR 52.202-1 | OCT 1995 | DEFINITIONS |
| I.3 | DEAR 952.202-1 | | DEFINITIONS |
| I.4 | FAR 52.203-3 | APR 1984 | GRATUITIES |
| I.5 | FAR 52.203-5 | APR 1984 | COVENANT AGAINST CONTINGENT FEES |
| I.6 | FAR 52.203-7 | JUL 1995 | ANTI-KICKBACK PROCEDURES |
| I.7 | FAR 52.203-8 | JAN 1997 | CANCELLATION, RESCISSION, AND RECOVERY OF FUNDS FOR ILLEGAL OR IMPROPER ACTIVITY |
| I.8 | FAR 52.203-10 | JAN 1997 | PRICE OR FEE ADJUSTMENT FOR ILLEGAL OR IMPROPER ACTIVITY |
| I.9 | FAR 52.203-12 | JUN 1997 | LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS |
| I.10 | FAR 52.204-4 | JUN 1996 | PRINTING/COPYING DOUBLE-SIDED ON RECYCLED PAPER |
| I.11 | DEAR 952.208-70 | APR 1984 | PRINTING |

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| I.12 | FAR 52.209-6 | JUL 1995 | PROTECTING THE GOVERNMENTS INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT |
| I.13 | FAR 52.215-2 | AUG 1996 | AUDIT AND RECORDS - NEGOTIATION |
| I.14 | FAR 52.215-2 | JAN 1997 | AUDIT AND RECORDS - NEGOTIATION (AUG 1996) -- ALTERNATE II |
| I.15 | FAR 52.215-8 | OCT 1997 | ORDER OF PRECEDENCE--UNIFORM CONTRACT FORMAT |
| I.16 | FAR 52.215-10 | OCT 1997 | PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA |
| I.17 | FAR 52.215-11 | OCT 1997 | PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA - MODIFICATIONS |
| I.18 | FAR 52.215-12 | OCT 1997 | SUBCONTRACTOR COST OR PRICING DATA |
| I.19 | FAR 52.215-13 | OCT 1997 | SUBCONTRACTOR COST OR PRICING DATA - MODIFICATIONS |
| I.20 | FAR 52.215-14 | OCT 1997 | INTEGRITY OF UNIT PRICES |
| I.21 | FAR 52.215-15 | OCT 1997 | TERMINATION OF DEFINED BENEFIT PENSION PLANS |
| I.22 | FAR 52.215-17 | OCT 1997 | WAIVER OF FACILITIES CAPITAL COST OF MONEY |
| I.23 | FAR 52.215-18 | OCT 1997 | REVERSION OR ADJUSTMENT OF PLANS FOR POSTRETIREMENT BENEFITS (PRB) OTHER THAN PENSIONS |
| I.24 | FAR 52.215-21 | OCT 1997 | REQUIREMENTS FOR COST OR PRICING DATA OR INFORMATION OTHER THAN COST OR PRICING DATA--MODIFICATIONS |
| I.25 | FAR 52.215-21 | OCT 1997 | REQUIREMENTS FOR COST OR PRICING DATA OR INFORMATION OTHER THAN COST OR PRICING DATA--MODIFICATIONS-- ALTERNATE I (OCT 1997) |
| I.26 | FAR 52.216-7 | FEB 1998 | ALLOWABLE COST AND PAYMENT |

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| I.27 | DEAR 952.216-7 | | ALLOWABLE COST AND PAYMENT (FEB 1998)--ALTERNATE I |
| I.28 | DEAR 952.216-7 | | ALLOWABLE COST AND PAYMENT (FEB 1998)--ALTERNATE II |
| I.29 | FAR 52.216-12 | APR 1984 | COST-SHARING CONTRACT - NO FEE |
| I.30 | FAR 52.216-15 | FEB 1998 | PREDETERMINED INDIRECT COST RATES |
| I.31 | FAR 52.219-8 | JUN 1997 | UTILIZATION OF SMALL, SMALL DISADVANTAGED AND WOMEN-OWNED SMALL BUSINESS CONCERNS |
| I.32 | FAR 52.219-9 | AUG 1996 | SMALL, SMALL DISADVANTAGED AND WOMEN-OWNED SMALL BUSINESS SUBCONTRACTING PLAN |
| I.33 | FAR 52.219-16 | OCT 1995 | LIQUIDATED DAMAGES - SUBCONTRACTING PLAN |
| I.34 | FAR 52.222-1 | FEB 1997 | NOTICE TO THE GOVERNMENT OF LABOR DISPUTES |
| I.35 | FAR 52.222-2 | JUL 1990 | PAYMENT FOR OVERTIME PREMIUMS |
| I.36 | FAR 52.222-3 | AUG 1996 | CONVICT LABOR |
| I.37 | FAR 52.222-4 | JUL 1995 | CONTRACT WORK HOURS AND SAFETY STANDARDS ACT - OVERTIME COMPENSATION |
| I.38 | FAR 52.222-26 | APR 1984 | EQUAL OPPORTUNITY |
| I.39 | FAR 52.222-35 | APR 1984 | AFFIRMATIVE ACTION FOR SPECIAL DISABLED AND VIETNAM ERA VETERANS |
| I.40 | FAR 52.222-36 | APR 1984 | AFFIRMATIVE ACTION FOR HANDICAPPED WORKERS |
| I.41 | FAR 52.222-37 | JAN 1988 | EMPLOYMENT REPORTS ON SPECIAL DISABLED VETERANS AND VETERANS OF THE VIETNAM ERA |
| I.42 | FAR 52.223-2 | APR 1984 | CLEAN AIR AND WATER |

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| I.43 | FAR 52.223-6 | JAN 1997 | DRUG-FREE WORKPLACE |
| I.44 | FAR 52.223-14 | OCT 1996 | TOXIC CHEMICAL RELEASE REPORTING |
| I.45 | DEAR 952.224-70 | APR 1994 | PAPERWORK REDUCTION ACT |
| I.46 | FAR 52.225-11 | OCT 1996 | RESTRICTIONS ON CERTAIN FOREIGN PURCHASES |
| I.47 | DEAR 952.226-71 | JUN 1996 | UTILIZATION OF ENERGY POLICY ACT TARGET ENTITIES |
| I.48 | DEAR 952.226-72 | JUN 1996 | ENERGY POLICY ACT SUBCONTRACTING GOALS AND REPORTING REQUIREMENTS |
| I.49 | DEAR 952.226-74 | JUN 1997 | DISPLACED EMPLOYEE HIRING PREFERENCE |
| I.50 | FAR 52.227-1 | JUL 1995 | AUTHORIZATION AND CONSENT |
| I.51 | FAR 52.227-1 | APR 1984 | AUTHORIZATION AND CONSENT (JUL 1995) -- ALTERNATE I |
| I.52 | FAR 52.227-2 | AUG 1996 | NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT |
| I.53 | DEAR 952.227-11 | FEB 1995 | PATENT RIGHTS - RETENTION BY THE CONTRACTOR (SHORT FORM) |
| I.54 | FAR 52.227-12 | JAN 1997 | PATENT RIGHTS - RETENTION BY THE CONTRACTOR (LONG FORM) |
| I.55 | DEAR 952.227-13 | SEPT 1997 | PATENT RIGHTS - ACQUISITION BY THE GOVERNMENT |
| I.56 | FAR 52.227-14 | JUN 1987 | RIGHTS IN DATA - GENERAL |
| I.57 | FAR 52.227-14 | JUN 1987 | RIGHTS IN DATA - GENERAL(JUN 1987) -- ALTERNATE I |
| I.58 | FAR 52.227-14 | JUN 1987 | RIGHTS IN DATA - GENERAL(JUN 1987) -- ALTERNATE II |
| I.59 | FAR 52.227-14 | JUN 1987 | RIGHTS IN DATA - GENERAL(JUN 1987) -- ALTERNATE IV |

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| I.60 | FAR 52.227-14 | JUN 1987 | RIGHTS IN DATA - GENERAL(JUN 1987) -- ALTERNATE V |
| I.61 | FAR 52.227-16 | JUN 1987 | ADDITIONAL DATA REQUIREMENTS |
| I.62 | FAR 52.227-23 | JUN 1987 | RIGHTS TO PROPOSAL DATA (TECHNICAL) |
| I.63 | DEAR 952.227-73 | APR 1984 | ADDITIONAL TECHNICAL DATA REQUIREMENTS |
| I.64 | DEAR 952.227-75 | APR 1984 | RIGHTS IN TECHNICAL DATA LONG FORM |
| I.65 | DEAR 952.227-77 | APR 1984 | RIGHTS IN TECHNICAL DATA CLAUSE - SHORT FORM |
| I.66 | DEAR 952.227-82 | APR 1984 | RIGHTS TO PROPOSAL DATA |
| I.67 | FAR 52.228-7 | MAR 1996 | INSURANCE - LIABILITY TO THIRD PERSONS |
| I.68 | FAR 52.230-2 | APR 1996 | COST ACCOUNTING STANDARDS |
| I.69 | FAR 52.230-3 | APR 1996 | DISCLOSURE AND CONSISTENCY OF COST ACCOUNTING PRACTICES |
| I.70 | FAR 52.230-4 | AUG 1992 | CONSISTENCY IN COST ACCOUNTING PRACTICES |
| I.71 | FAR 52.230-5 | APR 1996 | COST ACCOUNTING STANDARDS - EDUCATIONAL INSTITUTION |
| I.72 | FAR 52.230-6 | APR 1996 | ADMINISTRATION OF COST ACCOUNTING STANDARDS |
| I.73 | FAR 52.232-17 | JUN 1996 | INTEREST |
| I.74 | FAR 52.232-20 | APR 1984 | LIMITATION OF COST |
| I.75 | FAR 52.232-22 | APR 1984 | LIMITATION OF FUNDS |
| I.76 | FAR 52.232-23 | JAN 1986 | ASSIGNMENT OF CLAIMS |
| I.77 | FAR 52.232-25 | JUN 1997 | PROMPT PAYMENT |
| I.78 | FAR 52.232-33 | AUG 1996 | MANDATORY INFORMATION FOR ELECTRONIC FUNDS TRANSFER PAYMENT |

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| I.79 | FAR 52.233-1 | OCT 1995 | DISPUTES |
| I.80 | FAR 52.233-1 | DEC 1991 | DISPUTES (OCT 1995) -- ALTERNATE I |
| I.81 | FAR 52.233-3 | AUG 1996 | PROTEST AFTER AWARD |
| I.82 | FAR 52.233-3 | JUN 1985 | PROTEST AFTER AWARD (AUG 1996) -- ALTERNATE I |
| I.83 | DEAR 952.235-70 | APR 1994 | KEY PERSONNEL |
| I.84 | FAR 52.242-1 | APR 1984 | NOTICE OF INTENT TO DISALLOW COSTS |
| I.85 | FAR 52.242-3 | OCT 1995 | PENALTIES FOR UNALLOWABLE COSTS |
| I.86 | FAR 52.242-4 | JAN 1997 | CERTIFICATION OF FINAL INDIRECT COSTS |
| I.87 | FAR 52.242-13 | JUL 1995 | BANKRUPTCY |
| I.88 | FAR 52.243-2 | AUG 1987 | CHANGES - COST-REIMBURSEMENT |
| I.89 | FAR 52.243-2 | APR 1984 | CHANGES - COST-REIMBURSEMENT (AUG 1987) -- ALTERNATE V |
| I.90 | FAR 52.244-2 | OCT 1997 | SUBCONTRACTS (COST-REIMBURSEMENT AND LETTER CONTRACTS) |
| I.91 | FAR 52.244-5 | DEC 1996 | COMPETITION IN SUBCONTRACTING |
| I.92 | FAR 52.245-1 | APR 1984 | PROPERTY RECORDS |
| I.93 | FAR 52.245-5 | JAN 1986 | GOVERNMENT PROPERTY (COST- REIMBURSEMENT, TIME-AND-MATERIAL, OR LABOR-HOUR CONTRACTS) |
| I.94 | FAR 52.245-5 | JUL 1985 | GOVERNMENT PROPERTY (COST- REIMBURSEMENT, TIME-AND-MATERIAL, OR LABOR-HOUR CONTRACTS)(JAN 1986)-- ALTERNATE I |
| I.95 | DEAR 952.245-5 | JAN 1986 | GOVERNMENT PROPERTY (COST- REIMBURSEMENT, TIME-AND-MATERIAL, OR LABOR-HOUR CONTRACTS) |
| I.96 | FAR 52.245-18 | FEB 1993 | SPECIAL TEST EQUIPMENT |

| | | | |
|--------------|------------------------|-----------------|---|
| I.97 | FAR 52.245-19 | APR 1984 | GOVERNMENT PROPERTY FURNISHED "AS IS." |
| I.98 | FAR 52.246-23 | FEB 1997 | LIMITATION OF LIABILITY |
| I.99 | FAR 52.247-63 | JAN 1997 | PREFERENCE FOR U.S.-FLAG AIR CARRIERS |
| I.100 | FAR 52.247-64 | JUN 1997 | PREFERENCE FOR PRIVATELY OWNED U.S.-FLAG COMMERCIAL VESSELS |
| I.101 | DEAR 952.247-70 | FEB 1997 | FOREIGN TRAVEL |
| I.102 | FAR 52.249-5 | SEP 1996 | TERMINATION FOR CONVENIENCE OF THE GOVERNMENT (EDUCATIONAL AND OTHER NONPROFIT INSTITUTIONS) |
| I.103 | FAR 52.249-6 | SEP 1996 | TERMINATION (COST-REIMBURSEMENT) |
| I.104 | FAR 52.249-6 | SEP 1996 | TERMINATION (COST-REIMBURSEMENT)(SEP 1996) -- ALTERNATE II |
| I.105 | FAR 52.249-14 | APR 1984 | EXCUSABLE DELAYS |
| I.106 | DEAR 952.251-70 | JUN 1995 | CONTRACTOR EMPLOYEE TRAVEL DISCOUNTS |
| I.107 | FAR 52.252-4 | APR 1984 | ALTERATIONS IN CONTRACT |
| I.108 | FAR 52.253-1 | JAN 1991 | COMPUTER GENERATED FORMS |

I.109 FAR 52.215-19 NOTIFICATION OF OWNERSHIP CHANGES (OCT 1997)

(a) The Contractor shall make the following notifications in writing:

- (1) When the contractor becomes aware that a change in its ownership has occurred, or is certain to occur, that could result in changes in the valuation of its capitalized assets in the accounting records, the Contractor shall notify the Administrative Contracting Officer (ACO) within 30 days.
- (2) The Contractor shall also notify the ACO within 30 days whenever changes to asset valuations or any other cost changes have occurred or are certain to occur as a result of a change in ownership.

(b) The Contractor shall -

- (1) Maintain current, accurate, and complete inventory records of assets and their costs;

- (2) Provide the ACO or designated representative ready access to the records upon request;
 - (3) Ensure that all individual and grouped assets, their capitalized values, accumulated depreciation or amortization, and remaining useful lives are identified accurately before and after each of the Contractor's ownership changes; and
 - (4) Retain and continue to maintain depreciation and amortization schedules based on the asset records maintained before each Contractor ownership change.
- (c) The Contractor shall include the substance of this clause in all subcontracts under this contract that meet the applicability requirement of FAR 15.408(k).

PART III - SECTION J

LIST OF ATTACHMENTS

| <u>Attachment</u> | <u>Title</u> | <u>Page #</u> |
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| B | Reporting Requirements | B1-B23 |
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| D | List of Government Property - Contractor Acquired | D1 |
| E | List of Government-Furnished Property | E1 |
| F | Subcontract Plan ** | F1 |

* Program Areas of Interest are relevant only to the solicitation. Attachment A will be replaced with the contract Statement of Work prior to contract award.

** A "Subcontract Plan" may be required prior to award being made, in accordance with Part III, Section I, FAR 52.219-9, Small Business, Small Disadvantaged and Women-Owned Small Business Subcontracting Plan.

PART III - SECTION J

ATTACHMENT A

OBJECTIVES, BACKGROUND and PROGRAM AREA OF INTEREST

PROGRAM RESEARCH AND DEVELOPMENT ANNOUNCEMENT

"Oil Technology R & D Program"

PRDA NO. DE-RA26-98BC15200

1.0 DEPARTMENTAL OBJECTIVES

1.1 INTRODUCTION

Through issuance of this PRDA, the Department of Energy's (DOE) National Petroleum Technology Office (NPTO) [formerly Bartlesville Project Office] seeks proposals for research, development and/or demonstration for five (5) broad Areas of Interest that are oil related. Each research proposal shall address a specific technical topic within a particular Area of Interest (i.e. Not the Area of Interest). **If you wish to propose for more than one topic then separate proposals are required.** Technical topics for each Area of Interest are: **(1) Advanced Diagnostics and Imaging Systems-**(a) Pore scale imaging, (b) Wettability and imbibition, (c) In-situ relative permeability, and (d) Up-scaling techniques; **(2) Production Research-** (a) Gas Flooding, (b) Chemical Flooding, (c) Microbial Flooding, (d) Heavy Oil Recovery, (e) Novel Processes, and (f) Reservoir Simulation; **(3) Integrated Prospecting Concepts-** (a) Modeling of dynamic sedimentary hydrocarbon systems and (b) Risk Assessment technology; **(4) Processing Research-** (a) Pollution Prevention and (b) PM_{2.5} Science-Based Regulations; and **(5) Oil and Gas Environmental Research-** (a) Soil Remediation, (b) Air Emissions, (c) Innovative Waste and Produced Water Management, and (d) Risk Assessment/Streamlining. The proposals should focus on cost effectively improving current technologies. All responsible individuals, corporations, non-profit organizations, educational institutions, and state or local governments may submit proposals for consideration.

1.2 BACKGROUND

The primary mission of the DOE's National Oil Program is to conduct oil related research and development activities. The purpose is to expand the knowledge base through which industry can bring additional oil resources and new technology options into the marketplace in a cost-effective and environmentally acceptable manner.

2.0 PRDA OBJECTIVE

The general objective of this PRDA is to support research which supplements and complements, but does not duplicate or displace private and other public research and development efforts.

3.0 PROGRAM AREA OF INTEREST

Individual introductions, backgrounds, objectives and discussions for each of the technical topics covered by the five areas of interest are discussed under this section.

3.1 AREA OF INTEREST: ADVANCED DIAGNOSTICS AND IMAGING SYSTEMS (ADIS)

3.1.1 INTRODUCTION

The Department of Energy (DOE) - National Petroleum Technology Office (NPTO) seeks research proposals on advanced and innovative technologies to quantify reservoir architecture at various scales; the dynamics of multiphase fluid-rock and fluid-fluid interactions and resulting impacts on producibility from oil reservoirs. The specific technical topics for this Area of Interest are: 1) Pore scale imaging; 2) Wettability and imbibition; 3) In-situ relative permeability; and 4) Up-scaling techniques. It is anticipated that 4 to 8 projects will be awarded in the Advanced Diagnostics and Imaging Systems (ADIS) Area of Interest with an anticipated annual DOE cost of \$250,000 to \$400,000 for a duration of up to 3 years. A minimum of 20% cost-sharing of the total project costs is required. The description of allowable costs that can be counted as cost-sharing is defined elsewhere in the PRDA document.

3.1.2 BACKGROUND FOR ADVANCED DIAGNOSTICS AND IMAGING SYSTEMS RESEARCH

The primary mission of the DOE - National Oil Program, implemented through the National Petroleum Technology Office is to conduct oil related research and development activities. The purpose is to expand the knowledge base through which industry can bring additional oil resources and new technology options into the marketplace in a cost-effective and environmentally acceptable manner.

The Advanced Diagnostics and Imaging Systems (ADIS) Program is an integral part of the DOE/FE mission and strategy. The ADIS program is directed toward cross-cutting interdisciplinary research to develop advanced and innovative technologies applied to the incremental recovery of the estimated 160 billion barrels of existing and undiscovered technically recoverable oil from onshore, state waters and OCS regions of the United States (USGS, 1995, MMS, 1996).

Uncertainty concerning the physical and chemical nature of oil reservoirs is one of the most severe technological barriers to increasing the economic oil recovery from existing and undiscovered fields. Oil reservoirs are composed of a wide variety of architectural heterogeneities (i.e. rock facies geometry, diagenetic alterations, fracturing, stratigraphic and structural settings). Porosity, relative permeability, pore and pore throat morphology, capillary forces, miscibility and saturation variations (i.e., oil-gas-brine plus other displacing fluid/gas compositions, rock-fluid, fluid-gas and fluid-fluid interactions) also contribute to technical recovery barriers. Several of these variables often change between like reservoirs within a single “geologic play” and change due to temporal and spatial dynamic alterations that occur within a reservoir throughout the exploitation and recovery processes.

3.1.3 ADVANCED DIAGNOSTICS AND IMAGING SYSTEMS - PRDA OBJECTIVE

The ADIS section of this PRDA is to support research designed to quantify the interrelationships of the reservoir rock architecture, fluid-rock, fluid-gas, and fluid-fluid interactions that at various scales work together to impact oil producibility from petroleum reservoirs. Research efforts should target geologic formation(s) and associated oil reservoirs within U.S. basins. Multidisciplinary teaming and active involvement by oil producers and/or service companies, with interests in the application of research results for more efficient recovery of larger volumes of oil from fields within the geologic formations and basins studied, is strongly encouraged. Results of these research and technology developments shall be aggressively transferred to the public and private industry thus allowing for informed decisions related to cost-effective reservoir management and exploitation of like oil reservoirs within the productive formations studied.

This section of the solicitation is intended to provide an offeror with the maximum opportunity to develop the research statement-of-work (SOW), associated tasks and subtasks with appropriate staging of milestones and deliverables, to suit the subject area and the state of knowledge and development in that area. Proposed research should demonstrate a coupling between theoretical, experimental, computational and resultant applicability. To address the proposed research in this manner will require opening communication between various disciplines focussing on similar problems. This research may supplement and complement, but not duplicate or displace, private or other public R & D efforts. This solicitation does not seek proposals which duplicate current research or offer only minor improvements in ongoing research in the area proposed.

3.1.4 TECHNICAL TOPICS FOR ADVANCED DIAGNOSTICS AND IMAGING SYSTEMS AREA OF INTEREST

Proposals will be considered for Advanced Diagnostics and Imaging Systems in any of the following areas: 1) Pore scale imaging; 2) Wettability and imbibition; 3) In-situ relative permeability; and 4) Up-scaling techniques. **Each proposal submitted shall identify the specific technical topic to be addressed** and shall submit a separate statement-of-work (SOW), including tasks, subtasks, milestones, deliverables and associated budget for each proposal. If one of more proposals are submitted under a specific topical area, each proposal shall be a separate stand alone document.

3.1.4.1 PORE SCALE IMAGING

Imaging of naturally occurring reservoir rock and the fluids therein at the pore and pore throat scales, using a variety of techniques, aids the study of reservoir properties and how these properties affect oil recovery from porous media. Technologies used in these research activities include (but are not limited to) X-ray computed tomography (CT), high and low field magnetic resonance imagery (MRI), computed micro-tomography (CMT) and confocal microscopy. These imaging methods offer various degrees of resolution and provide different kinds of pore space information, depending upon the technology. As such, the information obtained is often complementary.

There is a need to characterize reservoir rock and associated heterogeneities at various scales, using a combination of these measuring technologies, and to quantify how characteristics at the different scales impact fluid movement in oil reservoirs. The derivation of reservoir engineering parameters

through studies using these technologies has applicability in the development of scale-up procedures for multifluid flow in reservoirs.

For example, the use of low field nuclear magnetic resonance relaxometry (NMR) to measure porosity, bound water, residual water, fluid indices, wettability, pore-size distribution and permeability from core and drill cuttings has direct applicability. This technology is very sensitive to rock-fluid interactions, and since it operates in a frequency range similar to NMR logging tools, has considerable applicability in the oil industry.

3.1.4.2 WETTABILITY AND IMBIBITION

The role of wetting films and wettability on imbibition and fluid movement needs additional research. Wetting films of fluids that preferentially contact mineral grains in a multifluid system have a significant effect on the fluid flow rate through reservoir rock. The impacts of changing surface wettability on multiphase displacement processes as it relates to actual reservoirs also needs further research. Wettability conditions can have different levels of stability and the resulting fluid behavior can be strongly time dependent. Oil displacement efficiency as a function of wetting and spreading of films in three-phase fluid systems can result in significantly different oil recovery efficiency. Experimental, analytical and computational research in the area of wettability involves important mechanisms that are critical to improving the understanding of displacement of fluids through reservoirs, such as the role of microscale chemistry and physical/chemical interactions between the mineral grain-fluid boundaries on recovery efficiency. Considerable work has been done on the endpoints of wettability and on uniform wetting; however, non-uniform wetting conditions within a reservoir are more likely the case given what is currently known about spatial and temporal wettability distributions within rock experiencing the dynamics of fluid sweeps through an oil reservoir.

Research in acquiring the imbibition data that is part of the capillary pressure curve and the application of this information to the improvement of oil recovery from reservoir rock under multiphase systems needs additional effort. Often only drainage relative permeability relationships are measured in the lab although the displacement process may be via imbibition. Imbibition is, at least in part, a different type of process than drainage and needs to be better understood. The resulting data should provide considerable improvement in the accuracy of recovery predictions than is obtainable under current technology.

3.1.4.3 IN-SITU RELATIVE PERMEABILITY

There is a need for further investigation into the relationships between reservoir rock pore-structure and multiphase relative permeability functions. The relative permeability parameter arises from the extrapolation of the single phase Darcy's Equation to multiple phases. This parameter is considered more a "fitting parameter" as it is currently used and it is not a meaningful focal point in reservoir modeling efforts. The physical meaning of this parameter must be identified and integrated into applications. Effort needs to be directed toward developing techniques to measure oil-brine and oil-brine-gas relative permeabilities under reservoir conditions. Experimental approaches should be structured to determine relative permeability in a functional relationship. The effect of in situ conditions needs to be identified and included in the parametric description. Uncertainty in resulting

relative permeability relationships also needs to be identified. There is a need to study the physical and chemical processes that influence fluid behavior at the pore level, and incorporate them into the functional relative permeability relationship.

3.1.4.4 UP-SCALING

The upscaling of process information at the microscale to larger continuum scales associated with traditional porous media flow equations needs considerable research and development. There is a need to identify how important the microscopic behavior is to the behavior of the reservoir as a whole. Effort should be placed on incorporating the microscale processes into the whole core scale relationships, and then how to apply those to improving oil recovery.

New formulations of the multifluid flow equations have been derived from rigorous volume averaging theory in which microscopic interfacial behavior is explicitly incorporated. The current status of these equations suggests that, thermodynamically, the interfacial area per unit volume is an important variable in predicting macroscopic behavior, and this variable may, in part explain the observed hysteresis in saturation - capillary pressure relationships. The continued development and implementation of this kind of theory requires experimental and computational support, and emphasizes the need for integrated studies of porous media processes using various technologies operating at various scales.

3.2 AREAS OF INTEREST: PRODUCTION RESEARCH

3.2.1 INTRODUCTION

The Department of Energy's (DOE) National Petroleum Technology Office (NPTO) seeks research proposals on innovative technology which will substantially increase predictability and improve oil extraction. The Technical Topics for the Production Research Area of Interest are: 1) Gas Flooding; 2) Chemical Flooding; 3) Microbial Flooding; 4) Heavy Oil Recovery, 5) Novel Processes, and 6) Reservoir Simulation. It is anticipated that 3 to 6 projects will be awarded in the Area of Interest for Production Research which will be from \$150,000 to \$300,000 per year and 3 to 5 years in duration. However, projects of less than 3 years duration shall also be considered.

3.2.2 BACKGROUND FOR PRODUCTION RESEARCH

Fossil fuels will likely remain the principal energy sources for most of the world, including the United States, well into the middle of the next century ("Federal Energy Research and Development for the Twenty-First Century," Report of the Energy Research and Development Panel, The President's Committee of Advisors on Science and Technology, November 1997). One of the primary missions of the Fossil Energy (FE) program is to conduct the oil research and development program of the Department of Energy (DOE). The program shall expand the knowledge base which, with industry, can bring efficient, economically competitive, and environmentally acceptable new fossil energy resources and technology options into the marketplace and improve the United States national security by reducing dependence on imported oil. As an integral part of the FE mission and strategy, Production Research is directed toward the development of advanced and innovative technologies for recovering oil from large, currently unrecoverable petroleum resources.

As an integral part of the Fossil Energy mission and strategy, the extraction research of oil is directed toward the development of advanced and innovative technologies for recovering oil from large, currently unrecoverable, petroleum resources. Primary and secondary recovery operations have been utilized for many years to extract oil from reservoirs. A DOE study estimated that 256 billion barrels of oil remain in place in known U. S. oil resources (Federal Oil Research: A Strategy for Maximizing the Producibility of Known U.S. Oil, DOE/FE-0139, August 1989).

With continually diminishing U.S. crude production and increasing dependency on foreign supplies, there is a need to develop oil production from these domestic oil resources. Advanced Recovery Concepts will play a significant role in the exploitation of these domestic resources. New techniques to overcome the problems associated with advanced recovery are needed in order to meet the energy demands of the immediate future. The importance of increasing the petroleum reserves of the United States through the production of oil left in petroleum reservoirs after conventional recovery techniques are used is well known and well documented.

3.2.3 PRODUCTION RESEARCH PRDA OBJECTIVES

In part, this solicitation is designed to identify research opportunities and conduct research (and transfer the results of such research to the user community) in the extraction of domestic petroleum resources. With continually diminishing U.S. crude production and increasing dependency on foreign supplies, there is a need to develop oil production from these domestic oil resources. Oil Recovery Concepts will play a significant role in the exploitation of these domestic resources. New techniques to overcome the problems associated with oil recovery are needed in order to meet the energy demands of the immediate future. The importance of increasing the petroleum reserves of the United States through the production of oil left in petroleum reservoirs after conventional recovery techniques are used is well known and well documented.

This section of this solicitation is intended to provide an offeror with maximum opportunity in structuring the research tasks in a research plan with appropriate milestones and a statement-of-work (SOW) that will suit the subject area and the state of knowledge or development in that area. Where a multi-phase research program is envisioned, the offeror must define the various stages in each phase, and the technical criteria for determining successful completion of each stage before advancing to subsequent stages.

It is contemplated that experimental research tasks in the selected research areas of interest, as a minimum, will achieve:

- Development or improvement of the cost effectiveness of gas flooding, chemical flooding, microbial methods, heavy oil recovery methods, novel processes and reservoir simulation.
- Development or improvement of laboratory scale experiments/measurements and/or theoretical studies of gas flooding processes, chemical flooding processes, microbial flooding processes, heavy oil recovery processes, novel processes, and process simulation in pertinent areas such as heterogeneity, oil recovery, new oil recovery methods for light and heavy oil via physical experiments, and/or mathematical modeling applicable to reservoir/process simulation
- Collection and reduction of experimental or analytical data showing the performance, effectiveness, and significance of the laboratory and theoretical results, and

- Preparation and delivery of technical reports (quarterly, annual, final) showing the results of the project, including details of all relevant performance characteristics and techniques by which they were calculated. Detailed specification of performance characteristics, their technical significance in Oil Recovery systems, their potential economic significance, and the recommendations for further research shall be documented.

3.2.4 TECHNICAL TOPICS FOR PRODUCTION RESEARCH

Proposals will be considered in any of the following six (6) technical topics: 1) Gas Flooding; 2) Chemical Flooding; 3) Microbial Flooding; 4) Heavy Oil Recovery, 5) Novel Process, and 6) Reservoir Simulation. The six (6) Technical Topics for the Areas of Interest in Production Research are given below.

3.2.4.1 GAS FLOODING

Miscible carbon dioxide gas flooding projects have continued to increase since 1986. The oil production in the U.S. from carbon dioxide flooding is over 170,000 barrels per day. However, immiscible carbon dioxide flooding, hydrocarbon miscible/ immiscible and flue gas projects have decreased.

The recovery efficiency using carbon dioxide in oil reservoirs is low. The recovery from these floods may be from 10-20% of the oil-in-place. Also, the carbon dioxide utilization rate, the amount of carbon dioxide injected to recover a barrel of oil, is high. This utilization rate is usually expressed in thousands of standard cubic feet of carbon dioxide per barrel of oil (MCF/BBL). These utilization rates vary between 3-12 MCF/BBL with about 7 MCF/BBL being typical. A significant amount of the low recovery efficiency and the high carbon dioxide utilization rate can be attributed to the high mobility, i.e., low viscosity, of the carbon dioxide which affects the sweep efficiency. Also, the need to maintain the reservoir pressure above the carbon dioxide minimum miscibility pressure (MMP) places severe constraints on applying carbon dioxide flooding to shallow reservoirs. These barriers must be overcome for gas flooding, especially miscible carbon dioxide flooding, to reach full implementation potential.

One of the major challenges to improving the oil recovery from carbon dioxide flooding is to reduce the amount of oil bypassed due to the poor sweep of carbon dioxide. Past work on mobility control for carbon dioxide flooding using foams, polymers and direct thickeners has shown promise, but has not yielded a widely accepted method. The improvement in sweep for carbon dioxide floods remains a major challenge. The ability to conduct carbon dioxide floods, natural gas floods or nitrogen floods effectively below the miscibility pressure would greatly increase the use of these processes in shallow oil reservoirs.

3.2.4.2 CHEMICAL FLOODING

Many industrial chemical flooding research groups have been greatly reduced or eliminated entirely due to oil prices and corporate restructuring. The knowledge gained by these research groups is usually proprietary in nature and normally not available to the private sector. Due to the high

potential of chemical flooding to both large and small producers, DOE supports the continuation of this research to maintain a state-of-the-art presence in chemical flooding.

Proposals are sought for developing low cost surfactants for use in surfactant flooding (surfactant-polymer, micellar-polymer, low tension flooding, alkaline-surfactant-flooding). Surfactant flooding involves injection of a chemical that is partially oil-soluble and partially water-soluble. These molecules migrate to the oil-brine interface and lower interfacial tension between the reservoir oil and water. This minimizes capillary forces and mobilizes oil that would otherwise be trapped by the reservoir water. The factors necessary to reduce adsorption of surfactant on reservoir rock and/or interaction with divalent ions has been clarified. However, the factors that affect low interfacial tension do not coincide with those that affect low adsorption. Some guidelines have been established for balancing these competing factors and emphasizing the favorable molecular structure of the surfactant. The potential of treatment of the reservoir (preflushing, wettability alteration, etc.) has been addressed, but this area needs further research.

Proposals are sought for the development of low cost polymers for use in polymer flooding (Polymer, Gels, Sweep Improvement, Profile Modification, Reservoir Conformance). Polymer flooding is an augmented water flood that uses synthetic or biologically produced polymers to thicken the injected water and increase its viscosity relative to that of the reservoir fluids, thereby improving recovery efficiency. The intended improvement in sweep efficiency is due to restriction of higher permeability channels by the polymer solution. This directs the injectant into previously unswept zones and improves mobility control. Areal sweep can be improved by upgrading mobility control. Volumetric sweep can be improved by fluid diversion techniques that effectively reduce macro-heterogeneities of the reservoir. Polymers may also be used to improve reservoir conformance and sweep efficiency. The concept is to control the injection and produced fluids in such a manner that the oil production is enhanced. Therefore, if the oil saturation is low in a particular area of the reservoir, it would be advantageous to have the oil recovery process not enter that region but rather into a region having higher oil saturation. Polymer gels are currently being used to improve conformance and profile modification.

Consortium, relating to the chemical methods discussed above, for oil recovery which include industry, universities, and DOE are also Technical Topics for the Production Research Area of Interest.

3.2.4.3 MICROBIAL FLOODING

Microbial flooding methods have a high potential for recovering oil. These methods hold promise as an application for independent oil producers. Microbial methods have been used in environmental cleanup projects, however, like surfactant flooding (micellar-polymer) methods, have not been used on a large scale for oil recovery. Increased research is needed if these methods are to make a major contribution to oil recovery. Methods of using microbes to make cost-effective surfactants or finding microbes, which can be used to produce oil must be found to make microbial flooding methods more attractive to the oil producer.

Microbial Techniques consist of injecting microbes into the reservoir, thereby generating surfactants, gas, or polymers, which will increase the oil recovery. **Note that the use of microbial techniques**

for the reduction of an environmental problem is NOT ACCEPTABLE IN PRODUCTION RESEARCH SECTION OF THE PRDA unless it relates directly to oil recovery, however, such microbial techniques may be acceptable in other areas of the PRDA. For example, microbial methods which can generate low cost surfactants or polymers at the surface, especially from waste products, are acceptable areas of research.

3.2.4.4 HEAVY OIL RECOVERY

Steam flooding and steam injection are the most successful recovery methods for recovering heavy oil. Nearly 600,000 barrels of oil per day are presently being produced in the United States using these recovery processes. Other heavy oil recovery processes include: in situ combustion, fire flooding, low temperature oxidation, high temperature oxidation, air injection, microwave heating methods, and oxygen rich air injection. All of these methods suffer from poor sweep of the reservoir.

Heavy oil recovery methods which will be considered for this section of this PRDA are: 1) the use of high temperature foams or other additives which will improve the sweep during steam injection or steam flooding, 2) advances in the application of other heavy oil recovery methods, such as, in situ combustion, fire flooding, low temperature oxidation, high temperature oxidation, and oxygen enriched air injection, and 3) the use of these processes in conjunction with horizontal wells will also be an area of consideration.

3.2.4.5 NOVEL PROCESSES

Novel Processes will be considered which are new methods for extracting oil from known reservoirs which will increase ultimate oil recovery. These processes are those which do not fit into the areas of Gas Flooding; Chemical Flooding, Microbial Flooding; Heavy Oil Recovery, or Reservoir Simulation. It is important to note that the Novel Processes area does **NOT** include equipment development or improvements on current equipment, facilities, or production techniques.

3.2.4.6 RESERVOIR SIMULATION

Reservoir simulation has made good advancement over the last 10 years. However, the simulators are not so advanced that oil recovery can be modeled completely and the reservoir performance predicted. Additional research is needed to develop new state-of-the-art simulators which can better predict the field performance.

Proposals are solicited to develop new or to make major extensions to "mainframe or supercomputer" simulators by using new methods, parallel computational methods, or other viable techniques. Also, scaled down simulators which are adequate for "desktop" or "workstation" systems that would be beneficial to the smaller oil producer. Simulators which would modify or improve the application of the above oil recovery processes to horizontal wells is also an acceptable area of simulation research.

It is important to note that the simulator source code, executable files, and appropriate manuals shall be required to be made available to the public through DOE publications.

3.3.0 AREAS OF INTEREST: INTEGRATED PROSPECTING CONCEPTS

3.3.1 INTRODUCTION

The Department of Energy's (DOE) National Petroleum Technology Office (NPTO) seeks research proposals on innovative approaches which will substantially increase hydrocarbon predictability and improve exploration prospect development and risk assessment for both prospecting and drilling. The technical topics for the Integrated Prospecting concepts area of Interest are: 1) Modeling of dynamic sedimentary hydrocarbon systems; and 2) Risk Assessment technology. It is anticipated that 2 to 5 projects will be awarded in the Area of Interest for Integrated Prospecting Concepts which will be from \$100,000 to \$500,000 per year and 2 to 5 years in duration depending on the scope of the proposal.

3.3.2 BACKGROUND

The primary mission of the DOE - National Oil Program, implemented through the National Petroleum Technology Office, Tulsa, OK, is to conduct oil related research and development activities. The purpose is to expand the knowledge base through which industry can bring additional oil resources and new technology options into the marketplace in a cost-effective and environmentally acceptable manner.

The Exploration and Drilling Program is an integral part of the DOE/FE mission and strategy. The program is directed toward interdisciplinary research to develop advanced and innovative technologies applied to the recovery of the estimated 160 billion barrels of existing and undiscovered technically recoverable oil from onshore, state waters and OCS regions of the United States (USGS, 1995, MMS, 1996). The Oil Exploration and Drilling Research Program is designed to support this mission by developing technologies and strategies that lower regional exploration prospect risk and quantify the risk of individual drilling prospects.

The goal is to lower costs to industry for domestic exploration and extension prospecting and expand the capability independent operators to adequately assess the probability of success of a prospect with products or effective processes that quantify the risks associated with the prospect.

3.3.3 INTEGRATED PROSPECTING CONCEPTS PRDA OBJECTIVES

In part, this solicitation is designed to identify research opportunities and conduct research (and transfer the results of such research to the user community) in the exploration for domestic petroleum resources. Increased oil discovery is needed in order to meet the energy demands of the future. With diminishing U.S. crude production and increasing dependency on foreign supplies, it is important to develop oil production from under-explored regions and deeper horizons in previously developed fields. Integrating various prospecting concepts will play a significant role in the exploitation of the domestic resource. New techniques to overcome the problems associated with identifying oil prospects and assessment techniques for determining the risk associated with testing the potential reservoir are critical to success. Judicious use of a company's capital resources requires a thorough assessment of a prospect's risk in order to compare it to other prospects. The integration of a number of critical pieces of information on a region is difficult in under-explored or large areas. Modeling can predict where actual data is missing. Often this assessment is based on several assumptions and individual instinct based on experience. Theoretical and technological advances in calculating benefits and risk have been applied in other

industries for problems that may not be easily assigned values. Such advances could be applied to the oil exploration and development industry.

This section of this solicitation is intended to provide an offeror with maximum opportunity in structuring the research tasks in a research plan with appropriate milestones and a statement-of-work (SOW) that will suit the subject area and the state of knowledge or development in that area. Where a multi-phase research program is envisioned, the offeror must define the various stages in each phase, and the technical criteria for determining successful completion of each stage before advancing to subsequent stages.

It is contemplated that experimental research tasks in the selected research areas of interest, at a minimum, will achieve:

- Development or improvement of integrated dynamic modeling systems for application to timing hydrocarbon generation, hydrocarbon transport, structural and stratigraphic features, and mixed depositional systems of the development or improvement of theories for decision-making and calculating risk as it is applied in the oil industry prospecting and in operations, including but not restricted to geologic risk, drilling risk, financial risk, environmental risk and cultural risk,
- Collection and reduction of experimental or analytical data showing the performance, effectiveness, and significance of the laboratory and theoretical results,
- Analysis of the cost effectiveness of the final product by use of case studies or real-world data sets, and
- Preparation and delivery of technical reports (quarterly, annual, final) showing the results of the project, including details of all relevant performance characteristics and techniques by which they were calculated. Detailed specification of performance characteristics, their technical significance in oil prospecting, their potential economic significance, and the recommendations for further research shall be documented.

3.3.4 TECHNICAL TOPICS FOR INTEGRATED PROSPECTING CONCEPTS

Proposals will be considered in any of the following two (2) technical topics: 1) Modeling of dynamic sedimentary hydrocarbon systems; and 2) Risk Assessment Technology. The two (2) Topics for the Areas of Interest in Integrated Prospecting Concepts research are given below.

3.3.4.1 Modeling of dynamic sedimentary hydrocarbon systems

Computer-based modeling is used in the industry for a wide variety of problems. Exploration efforts require that an area be thoroughly understood before picking a prospect location. The integration of information both in the spatial realm and the time realm is critical to identifying the most probable location of generation, migration, and trapping of hydrocarbons. It is not an easy task to create a quantitative analysis of an entire region with limited data. It can be difficult also if there is a large amount of information to envision the integration of all the data.

One of the major challenges to improving the effectiveness of current modeling is to consider mixed systems and to develop programs that can be operated on "desktop" or "workstation" systems. These are the facilities available to the majority of the domestic operators currently conducting exploration and extension operations in the United States. Software that is user friendly and does not require highly specialized computing facilities would enable independents to identify prospects rapidly, with greater confidence.

Proposals are sought for developing or improving low cost software adequate for "desktop" or "workstation" systems that would be beneficial to the smaller oil producer as well as for use by majors in the industry addressing such topics as 1) the creation of geomathematical models to address new theories of sedimentary dynamics through time, hydrocarbon migration and entrapment, or post migration effects, 2) creation of new algorithms to reduce the hardware requirements of popular modeling systems, 3) advanced integration of current modeling software to increase the capabilities of a product, without requiring larger computer facilities, or 4) creation of sophisticated models that integrate data in mixed systems such as elastic and carbonate systems that work on equipment suitable to independent producers. The scope of the proposal does not need to be expansive if the project addresses only a limited topic in the area of modeling hydrocarbon systems provided there is consideration for transferring the results to those who could benefit most by new developments and integrate them into future work.

Consortia, relating to the development of modeling products and testing the validity of the methods developed could include industry, universities, and manufacturers.

It is important to note that the simulator source code, executable files, and appropriate manuals shall be required to be made available to the public through DOE publications

3.3.4.2 RISK ASSESSMENT TECHNOLOGY

The knowledge gained by individuals in an exploration group is often used to assess the "risk" of a prospect. With such expertise difficult to obtain in many under-explored regions, it is necessary for the prospector to measure the risk of a venture before submitting it to either company management or in the case of a small operator, the investors. DOE supports the continuation of this research to maintain a state-of-the-art methods of risk assessment and decision-making technology as it relates to all aspects of exploration and development in the oil industry.

Proposals are sought for developing effective risk assessment technology/and or software to make this process thorough, quantitative, and cost effective.

It is important to note that the simulator source code, executable files, and appropriate manuals shall be required to be made available to the public through DOE publications

3.4.0 AREA OF INTEREST: PROCESSING RESEARCH

3.4.1 INTRODUCTION

The Department of Energy's (DOE) National Petroleum Technology Office (NPTO) seeks research proposals on innovative technology which will substantially reduce pollution potential for oil processing operations and/or reduce the cost of environmental compliance while maintaining or improving the current level of environmental protection. The technical topics for the Processing Research Area of Interest are: 1) Science for Environmental Protection, and 2) Pollution Prevention. It is anticipated that 3 to 6 projects will be awarded in the Area of Interest for Processing Research which will be from \$150,000 to \$300,000 per year and 1 to 3 years in duration.

3.4.2 BACKGROUND FOR PROCESSING RESEARCH

The primary mission of the Fossil Energy (FE) program is to conduct the coal, petroleum, and gas research and development (R&D) programs of the DOE. The program will expand the knowledge base which, with industry, can bring efficient, economically competitive, and environmentally acceptable new fossil energy resources and technology options into the marketplace and improve the United States national security by reducing dependence on imported oil. The Processing Research Program is designed to support this mission by developing technology in the areas of 1) **Science for Environmental Protection** that focuses on data development to assist in the formulation of new environmental regulations that are risk based and/or the implementation of existing regulations, that affect the refinery industry, in a risk based manner; 2) **Pollution Prevention** that focuses on the development of data or innovative technology which leads to substantial decreases or elimination of pollution from refining and/or increases the environmental quality of petroleum fuels.

3.4.3 PROCESSING RESEARCH PRDA OBJECTIVES

In part, this solicitation is designed to identify research opportunities and conduct research that will result in reduction of pollution (and transfer the results of such research to the user community) from the processing of oils and provide science-based information for sound regulations of fine particulate emissions associated with petroleum processing and use. With continually diminishing quality of U.S. crudes and increasing regulations on refinery and end-use emissions, there is a need to develop data for science-based regulations and prevent pollution when processing oils. The objective is to assist the industry in maintaining viable domestic refineries in an industrial environment that creates jobs while becoming increasingly more environmentally benign. Process improvements leading to decreases in emissions will continue to play a significant role in the future of the domestic refining industry.

The importance of the domestic refining industry to the security and economy of the United States is well known and well documented. New data are needed to address proposed new regulations in a scientific manner. Most of the industry's available capital is spent on equipment to meet regulations leaving little for process improvement or new processes, and narrow operating margins leave little room for associated research and data development.

This section of this solicitation is intended to provide an offeror with maximum opportunity in structuring the research tasks in a research plan with appropriate milestones and a statement-of-work (SOW) that addresses the subject area and the state of knowledge or development in that area. Where a multi-phase research program is

envisioned, the offeror must define the various stages in each phase, and the technical criteria for determining successful completion of each stage before advancing to subsequent stages.

It is contemplated that experimental research tasks in the selected research areas of interest, at a minimum, will achieve:

- Development of chemical data or laboratory processes that will lead to decreases in pollution from processing and/or produce cleaner fuels in a cost-effective manner.
- Development of data that leads to the true emissions from petroleum, science-based regulations, and decreases in emissions of material that forms PM_{2.5}. This includes identifying methods for characterizing fine organic particles and providing defensible, scientific technical data to support future regulatory planning for refining related emissions.
- Collection and reduction of experimental or analytical data showing the performance, effectiveness, and significance of the laboratory and theoretical results, and
- Preparation and delivery of technical reports (quarterly, annual, final) summarizing the results of the project, including details of all relevant performance characteristics and techniques by which they were calculated. Detailed specification of performance characteristics, their technical significance in pollution prevention or science-based fine particulate regulations, their potential economic significance, and the recommendations for further research shall be documented.

3.4.4 TECHNICAL TOPICS FOR PROCESSING RESEARCH

Proposals will be considered in any of the following two (2) technical topics: 1) Science for Environmental Protection and 2) Pollution Prevention. The thrust of this PRDA is not for development of equipment nor pilot plants. Discussions of the two (2) Technical Topics for the Areas of Interest in Processing Research are given below.

3.4.4.1 SCIENCE FOR ENVIRONMENTAL PROTECTION

Particulate standards for particles less than 10 microns in diameter have been in existence for some time. The EPA is presently considering regulatory standards for particles less than 2.5 microns in diameter (PM_{2.5}). Proposals are sought for developing data to ascertain the PM_{2.5} associated with petroleum, identifying and comparing methods for characterizing these fine particulate emissions, especially organic particulates, and provide defensible, scientific technical data to support future regulatory planning related to refining. Identifying emissions from refining and fuel use as well as determining precursor materials produced in the refinery which leads to formation of particulate material might provide a foundation for these regulations based on sound science.

3.4.4.2 POLLUTION PREVENTION

The trend for crudes going to refineries has continued to become heavier and contain more metals and heteroatoms. These oils are both harder and more costly to process. Further, some oils contain

significantly more metals, sulfur, nitrogen and oxygen than light, sweet crudes. As a result, processing these oils may involve more emissions than is experienced when processing lighter crudes. The purpose here is to overcome environmental barriers to processing heavier crudes. Typically, current technology to remove metals or heteroatoms involves expensive, energy-intensive processes.

High metals and heteroatom contents cause problems in process units. Catalyst activity decreases rapidly with the necessity for expensive catalyst replacement. The metals deposition on the catalysts adds problems to the regeneration or disposal of spent catalyst. Data correlating feedstock compositions with unit products and emissions could make significant contributions to the development of processes and parameters for reducing these emissions.

Projects to be considered for this PRDA section will contribute to significant reduction in emissions when processing oils (not limited to heavy oils nor to specific processes). Research to be considered include: 1) development of chemical data and its applicability; 2) laboratory studies aimed at improving processes for decreasing emissions; and/or 3) laboratory studies on innovative methods for processing or improving the ability to process high-boiling fractions and residua in an environmentally benign manner. In all of these research areas, the practicality of the proposed solutions shall be considered.

3.5.0 AREA OF INTEREST: OIL AND GAS ENVIRONMENTAL RESEARCH

3.5.1 INTRODUCTION

The Department of Energy's (DOE) National Petroleum Technology Office (NPTO) seeks research proposals on innovative technology which will substantially reduce the cost of environmental compliance for oil and gas exploration and production operations while maintaining or improving the current level of environmental protection. The technical topics for the Oil and Gas Area of Interest are: 1) Remediation 2) Air Emissions 3) Innovative Waste and Produced Water Management 4) Risk Assessment/Streamlining. It is anticipated that 4 to 8 projects will be awarded in the Area of Interest for Oil and Gas Environmental Research. Selected projects will range from \$100,000 to \$500,000 per year and from 1 to 3 years in duration.

3.5.2 BACKGROUND FOR OIL AND GAS ENVIRONMENTAL RESEARCH

The primary mission of the Fossil Energy (FE) program is to conduct the coal, petroleum, and gas research and development (R&D) programs of the DOE. The program will expand the knowledge base which, with industry, can bring efficient, economically competitive, and environmentally acceptable new fossil energy resources and technology options into the marketplace and improve the United States national security by reducing dependence on imported oil. The Oil and Gas Environmental Research Program is designed to support this mission by developing environmental compliance technologies and strategies that lower the cost of compliance while maintaining or improving the level of environmental protection. The program also provides science, risk assessment, and analysis to support risk-based, streamlined regulations.

The goal is to lower costs to industry and expand the capability of State and Federal officials to make cost-effective, risk-based regulatory decisions. The two primary research objectives are:

1. Develop new, lower-cost environmental compliance technologies.
2. Develop credible scientific and technical information to serve as the basis for risk-based regulation and compliance, including economic and energy impact analyses and tools for regulators to make risk-based decisions.

The ever-increasing costs of meeting environmental regulations places a substantial economic burden on our domestic industry. The burden is magnified by the economically marginal condition of a large percentage of domestic wells. Over two-thirds of domestic oil wells produce, on average, less than three barrels per day, making them highly sensitive to increasing costs.

3.5.3 OIL AND GAS ENVIRONMENTAL RESEARCH PRDA OBJECTIVES

In part, this solicitation is designed to identify research opportunities and conduct research (and transfer the results of such research to the user community) that will provide lower cost environmental technologies and/or provide credible data for improving regulation. With continually diminishing U.S. crude production and increasing dependency on foreign supplies, there is a need to develop and maintain these domestic oil resources. Effective environmental compliance will play a significant role in the ability to maintain access to these domestic resources.

This section of this solicitation is intended to provide an offeror with maximum opportunity in structuring the research tasks in a research plan with appropriate milestones and a statement-of-work (SOW) that will suit the subject area and the state of knowledge or development in that area. Where a multi-phase research program is envisioned, the offeror must define the various stages in each phase, and the technical criteria for determining successful completion of each stage before advancing to subsequent stages.

It is contemplated that experimental research tasks in the selected technical topics will fully consider the current and expected regulatory context, and, as a minimum, will achieve:

- Development or improvement of the cost effectiveness of soil remediation, air emission reduction or detection, or waste and produced water management technologies.
- Development or improvement of data that would significantly improve understanding of major environmental issues or support risk-based regulatory development, and
- Technology transfer of the results of the project to the appropriate audience (producers, regulators, etc.). The technology transfer mechanism should be appropriate for the proposed project and may include, but need not be limited to, approaches such as: workshops, manuals, newsletters, and presentations.
- Preparation and delivery of technical reports (quarterly, annual, final) showing the results of the project. Detailed specification of results, their technical significance, the potential economic significance, and the recommendations for further research shall be documented.

3.5.4 TECHNICAL TOPICS FOR OIL AND GAS ENVIRONMENTAL RESEARCH

Proposals will be considered in any of the following four (4) Technical Topics: 1) Soil Remediation 2) Air Emissions 3) Innovative Waste and Produced Water Management 4) Risk Assessment/Streamlining. The four (4) Technical Topics for the Oil and Gas Environmental Research Area of Interest are described below.

3.5.4.1 SOIL REMEDIATION

Contaminated soils result from (1) drilling operations where drilling fluids become contaminated in the reserve pit during and/or after completion of the well, (2) producing operations where oil, condensate or produced water are spilled or released onto the ground, and (3) pipeline breaks or leaks where crude oil and/or produced water are released to the soil. In many cases, intrinsic biochemical remediation is either not effective or is too slow to be an acceptable approach. Other remediation alternatives can be very expensive.

In addition, the detection limit for many contaminants is far below the bioavailability concentration. Thus, while a contaminant may still be detectable in the soil, there may not be an ecologically sound reason to remove it. The idea of “environmentally acceptable end-points” is gaining ever-increasing acceptance and allows both States and industry to focus their remediation dollars on the most significant problems.

Some wastes contain high hydrocarbon levels, while other wastes may contain high levels of total metals.

Proposals are sought in the following areas:

- Development of low cost, innovative remediation technology.
- Novel research examining the environmentally acceptable endpoints (How clean is clean?).
- Innovative remediation models which could be compiled as a on-line system or manual.
- Risk Assessment in one or all of the following areas: Hazard definition, toxicity, exposure and risk characterization. This may include developing a conceptual site model.
- Sampling methodologies that can lower the cost of sampling, testing, and remediation.

3.5.4.2 AIR EMISSIONS

Government and industry actions to preserve national and regional air quality, protect human health, and reduce the emission of greenhouse gases that may contribute to global climate change, could have profound effects on domestic oil and gas supply. To ensure that regulatory and policy decisions are based on credible, scientific information and to increase opportunities for balancing the energy and environmental needs of the Nation, DOE is interested in research under this section of the PRDA on the development and application of advanced technologies and methods to: 1) ascertain and reduce uncertainty about the contribution of oil and gas exploration and production operations on regional air quality, including improved modeling, instrumentation, and measurement; and, 2) more efficiently and cost-effectively detect or reduce air emissions from oil and gas operations, including ozone precursors, fine particulates, acid rain precursors, methane, other greenhouse gases, and hazardous air pollutants. DOE has particular interest in research to address

air quality concerns about oil and gas operations in or adjacent to pristine areas and complex, urban air sheds. Research on the following topics will not be considered under this PRDA: 1) air emissions from petroleum refineries, fuels distribution, or oil and gas consumption; 2) epidemiologic or other human health studies; 2) basic research on pollutant transport and air chemistry.

3.5.4.3 INNOVATIVE WASTE AND PRODUCED WATER MANAGEMENT

Oil and gas exploration and production operations generate wastes that must be managed in ways that are both economically achievable and protective of human health and the environment. Research being sought for this area of the PRDA must support the development or more widespread use of innovative technologies for managing oil and gas wastes, including waste minimization, sampling, characterization, treatment, disposal, reuse, or other waste management practices. Research should be directed toward lowering the cost of environmental compliance without compromising environmental protection. Such efforts may entail field demonstrations, risk assessment, economic analysis, industry and government outreach, and technology transfer and deployment strategies. Research proposals on the management of naturally occurring radioactive materials from oil and gas operations will be considered, with the exception of research on scale prevention. Research is **not** being sought under this area of the PRDA on: 1) technologies for preventing or mitigating the impact of oil spills; 2) technologies for preventing or controlling corrosion, scaling, chemical precipitation, or paraffins in oil and gas operations; or, 3) technologies for managing wastes from petroleum refineries, the transportation, distribution or marketing of petroleum or natural gas products, or ships or vessels transporting crude oil.

3.5.4.4 RISK ASSESSMENT AND STREAMLINING

A common priority of both government and industry is to reduce unreasonable, expensive compliance and reporting requirements. Such streamlining can reduce costs to gas and oil operators as well as to government agencies. It is accomplished through interagency cooperation, partnerships and dialogue among industry, States, Tribes, the public and other affected parties, and a willingness to try innovative approaches. Risk assessments, data collection and management, and cost-effectiveness studies can support these efforts.

Research proposals are sought that would provide information or technologies that would allow streamlining of existing or proposed regulatory programs for oil and gas environmental management. Such projects could include activities that would: allow Regulatory Agencies to direct resources toward areas of higher environmental risk (risk-based regulation); develop data to support performance-based regulations; develop innovative techniques in such areas as data management, GIS and/or GPS systems, prioritization methods, and risk analysis to demonstrate that existing regulations could be streamlined without compromising environmental protection; demonstrate new approaches to public involvement and dialogue in regulatory streamlining; or provide data to support revised regulations in order to accommodate new technologies or operating methods. These activities should have potential impacts beyond the specific application proposed so that the results would be transferrable to other government agencies or other geographic locations.

Proposed projects should **not** consist primarily of purchasing computer, GPS, or other equipment for government agencies or other organizations, although some new equipment may be required as

part of the project. The development of regulatory manuals is **not** an acceptable project in this program area.

NOTE: SEE PART V, SECTION L FOR INFORMATION ON PREPARING PROPOSALS IN RESPONSE TO THIS SOLICITATION.

DE-RA26-98BC15200

PART III, SECTION J

ATTACHMENT B

REPORTING REQUIREMENTS

NOTICE

The Contractor shall prepare and submit (postage prepaid) the plans and reports indicated in this Attachment. The Contractor shall be responsible for levying appropriate reporting requirements on any Subcontractor in such a manner as to ensure that data submitted by the Subcontractor to the Contractor is compatible with the data elements that the Contractor is responsible for submitting to DOE.

The Contractor should recognize that full and comprehensive compliance of its reporting requirements under this Contract may involve disclosure of proprietary data to the Government for the exercise of the Government's rights in accordance with the "Rights in Technical Data" clause. Recognizing that the Government intends to publish, in whole, certain required reports and other information about the project which is the subject of this Contract while preserving the proprietary data of the Contractor, the Contractor shall submit all deliverables as stand-alone documents which do not contain proprietary data. Whenever, in any deliverable, proprietary data are needed for fullness of reporting, they shall be included in a proprietary appendix. It is the intent of DOE to publish the following, as applicable, reports: Topical Reports; Annual Technical Reports, Quarterly Technical Reports, Semi-Annual Technical Reports and Final Technical Reports.

All technical reports submitted to the DOE must be accompanied by a completed and signed FETC F 2050.4 addressing patent information. Any patentable and/or proprietary information contained in the report must also be identified and marked in accordance with the FAR 52.227-14 Rights in Data - General clause.

SUBMIT THE NUMBER OF COPIES AS REQUIRED BY THE REPORTING REQUIREMENTS CHECKLIST TO THE FOLLOWING ADDRESS:

AAD Document Control
U. S. Department of Energy
Federal Energy Technology Center
P. O. Box 10940, MS 921-143
Pittsburgh, PA 15236-0940

**U.S. DEPARTMENT OF ENERGY
FEDERAL ENERGY TECHNOLOGY CENTER
REPORTING REQUIREMENTS CHECKLIST**

| | | | |
|--|-----------------|--|-----------------|
| 1. AWARDEE: | | 2. IDENTIFICATION NUMBER: PRDA DE-RA26-98BC15200 - Oil Technology R & D Program | |
| 3. REPORT SUBMISSION ADDRESS: All required report deliverables are identified with a ■ and are to be submitted to the following address: U.S. Department of Energy, Federal Energy Technology Center, ATTN: AAD Document Control, M/S 921-143, P.O. Box 10940, Wallace Road, Pittsburgh, PA 15236-0940. | | | |
| 4. PLANNING AND REPORTING REQUIREMENTS: | | | |
| | | FORM NO. (See 6.a.) | FREQ. |
| A. GENERAL MANAGEMENT | | | |
| ■ Management Plan | | None | X,O |
| ■ Status Report | | None | Y |
| ■ Summary Report | | 1332.2 | Y |
| B. SCHEDULE/LABOR/COST | | | |
| ■ Milestone Schedule/Plan | | 1332.3 | X,O, C |
| □ Labor Plan | | 1332.4 | |
| ■ Cost Plan | | 1332.7 | X,O,C |
| ■ Milestone Schedule/Status | | 1332.3 | Q |
| □ Labor Management Report | | 1332.8 | |
| ■ Cost Management Report | | 1332.9 | Q |
| C. EXCEPTION REPORTS | | | |
| □ Conference Record | | None | |
| □ Hot Line Report | | None | |
| D. PERFORMANCE MEASUREMENT | | | |
| □ Management Control System Description | | | |
| □ WBS Dictionary | | | |
| □ Index | | | |
| □ Element Definition | | | |
| □ Cost Performance Reports | | | |
| □ Format 1 - WBS | | | |
| □ Format 2 - Function | | | |
| □ Format 3 - Baseline | | | |
| E. TECHNICAL (See 6.b.) | | | |
| ■ Progress Report | | None | |
| □ Draft for Review | | None | Q,Y |
| ■ Final for Approval | | | |
| □ Annual Report | | | |
| □ Draft for Review | | None | |
| □ Final for Approval | | None | |
| ■ Topical Report | | None | A |
| ■ Final Report | | None | F |
| ■ Draft for Review | | None | F |
| ■ Final for Approval | | | |
| F. ENVIRONMENTAL | | | |
| ■ Hazardous Substance Plan | | None | O |
| ■ Hazardous Waste Report | | None | F |
| □ Environmental Compliance Plan | | None | |
| □ Environmental Monitoring Plan | | None | |
| □ Environmental Status Report | | None | |
| ■ Toxic Chemical Release Inventory | | EPA R | A |
| G. OTHER | | | |
| □ Key Personnel Staffing Report | | None | |
| ■ Property Reports | | See Text | A |
| ■ Subcontracting Report, SF 294 | | SF 294 | S |
| ■ Summary Subcontracting Report, SF 295 | | SF 295 | Y |
| (As modified by DEAR 952.226-72) | | | |
| ■ Software | | See Text | F |
| 5. FREQUENCY CODES AND DUE DATES: | | | |
| Calendar Days | | Calendar Days | |
| Definition | Due After Event | Definition | Due After Event |
| A - As Required | * | S - Semiannual (End of Half Calendar Year) | 30 |
| C - Contract Change | 15 | Technical Progress Report - Draft Version | 30 |
| F - Final - End of Effort | 0 | Final Version | 60** |
| Technical Report - Draft Version | - 60 | X - With Proposal/Bid/Application | 0 |
| Final Version | 0 | Y - Yearly (End of Calendar Year) | 30*** |
| M - Monthly (End of 1-Month Period) | 25 | Technical Progress Report - Draft Version | 30 |
| O - Once After Award | 30 | Final Version | 60** |
| Q - Quarterly (End of Calendar Quarter) | 30 | | |
| Technical Progress Report - Draft Version | 30 | | |
| Final Version | 60** | | |
| * For due date of Hot Line Report, all Property Reports, and Annual Technical Progress Report, see attached text. | | | |
| ** When a draft version is not required, the final version is due when the draft version would have been due. | | | |
| *** The yearly plans, identified in Sections 4A and 4B, are due by September 15 for the following Federal fiscal year. | | | |
| 6. SPECIAL INSTRUCTIONS: | | | |
| The forms identified in the checklist are available from the cognizant Contract Specialist. Alternate formats are acceptable provided the contents remain consistent with the DOE form. | | | |

REPORTING DUE DATES

| | |
|--|--|
| A (as required) | Within 10 calendar days after the event initiating the report for the record. |
| C (Change to Contractual Agreement) | Within 15 calendar days of significant change to the contract |
| F (Draft Final Report) | Within 60 calendar days previous to completion date of the contract. |
| F (Final Report) | Upon the completion date of the contract. |
| M (Monthly) | Within 25 calendar days after the reporting period |
| O (Once After Award) | Within 30 calendar days of award date |
| Q (Quarterly) (Without a Draft) | Within 30 calendar days after the end of the quarter (Due Dates: January 30, April 30, July 30, and October 30) |
| Q (Quarterly) (Draft) | Within 30 calendar days after the end of the quarter (Due Dates: January 30, April 30, July 30, and October 30) |
| Q (Quarterly) (With a Draft) | Within 60 calendar days after the end of the quarter (Due Dates: February 28, May 30, August 30, and November 30) |
| S (Semi-Annual) | Within 6 months and 30 calendar days of date of award and every 6 months thereafter with the exception of the Subcontracting Report for Individual Contracts which has specific required dates of April 30 and October 30 |
| X (With Proposal/Bid Application or with Significant Changes) | With Proposal/Bid/Application or with significant changes. |
| Y (Yearly or Upon Renewal of Contractual Agreement) | Within 30 calendar days of each period end date with the following exceptions: |

SUMMARY SUBCONTRACT REPORT, SF295 due OCTOBER 30)

ANNUAL TECHNICAL REPORT (Draft) shall be submitted within thirty (30) days following the anniversary date of award, i.e., for an award dated Sept. 1, 1998, the draft Annual Technical Report would be due by October 1, 1998. The Annual Technical Report (Final) shall be due sixty (60) calendar days following the anniversary date of award.

INSTRUCTIONS FOR PREPARATION OF REPORTS REQUIRED UNDER THIS AWARD

I. INTRODUCTION

Purpose

To standardize, to the extent possible, the formats, forms, instructions and procedures used to prepare contract deliverables identified on the Reporting Requirements Checklist as deliverables.

II. DESCRIPTION FOR THE CONTENT AND FORMAT FOR PLANS AND REPORTS RELATING TO MANAGEMENT, COST, AND TECHNICAL ISSUES.

NOTE: Only those reports designated on the DOE F 1332.1 with a “■” are required reports. The following text includes descriptions for some reports that are not a requirement of the proposed Contract.

A. GENERAL MANAGEMENT

1. **Management Plan**

The Management Plan describes the contractor's approach to performing the effort and producing the products identified in the contractual agreement, and the technical, schedule, cost, and financial management control systems to be used to manage that performance.

The outline for the Management Plan and a description of the contents follows:

a. EXECUTIVE SUMMARY

The executive summary gives DOE/FETC's management a brief, comprehensive overview of the most important aspects of the project.

b. BACKGROUND

This is a discussion of the background of the project, including the scientific, sociological, legislative, and historical factors, that demonstrates the contractor's understanding of the problems, both technical and management, associated with the project.

c. SCOPE OF THE PROJECT

This section gives a brief overview of the project. It should include:

- general description of project objectives;
- task titles and short descriptions;
- participants.

d. WORK BREAKDOWN STRUCTURE

The scope and complexity of the contractual agreement influence the number of levels required. Each descending level represents an increasingly detailed definition of the work elements. Level 1 is the goal or objective of the contractual agreement in its entirety. Level 2 consists of the major work products necessary for achieving the goals of the contractual agreement. Level 3 outlines the major element segments (subsystems) necessary for completing Level 2 elements. Work breakdown structure elements are identified by name and number from a progressive, alphanumeric system.

WBS Level 1: The overview should describe the philosophy underlying the selected technical approach.

WBS Levels 2 and 3:

WBS ELEMENT X.X: _____ (TITLE) _____

OBJECTIVE: State the objective of the task in a concise manner.

BACKGROUND (Not required for Construction Tasks):

- With respect to the project objective, what is the current state of understanding?
- Given the state-of-the-art, what are the outstanding issues which must be resolved in order to make progress?

TECHNICAL APPROACH (Not required for Construction Tasks): Describe in detail the manner in which the various issues will be resolved. The following are aspects of the work which should be considered and addressed (along with others you feel appropriate):

- What experiments will be performed and why?
- What materials will be used?
- What are the experimental conditions?
- What analytical techniques will be employed?
- What will be the approach to modeling?

In answering these questions, you should consider how the various tasks relate to one another and to other relevant ongoing work. Task outputs which feed into other tasks (and vice-versa) should be clearly delineated.

DELIVERABLES (Not required for Construction Tasks): Describe specifically the results of the task. These should include:

- raw and reduced data and method of presentation;
- brief description of models to be developed;
- other key results as appropriate.

e. SUPPORT SYSTEMS AND CONTROLS

In this section, the management, technical, and administrative system that will be used to control and execute the project will be described. Examples of the systems include: systems and engineering analysis, quality assurance, environmental, safety and health, legal support, ADP support, and accounting support.

2. Status Report

This report is the contractor project manager's narrative assessment of the status of the work being performed. Status should be reported by WBS element. Changes to contract objectives or technical approach are discussed in this report. Open items requiring action by either the contractor or the DOE Project Manager are noted in this report. A summary status assessment and forecast is also included.

The Status Report provides a concise narrative assessment of the status of the work being performed under the contractual agreement. DOE management uses the report to monitor status and to provide early recognition of potential problem areas. The report highlights changes to objectives, changes to technical approach, task variances from baselines in excess of stipulated thresholds by WBS reporting element, causative factors, and actions taken or proposed to resolve them, as well as factors with potential for causing significant variances in the future. Task progress may also be highlighted. The report next identifies open items requiring action by DOE or the participant. The report also provides a summary assessment of the current situation, including forecast of the near future and the expected impact on project accomplishment.

It briefly describes the work actually performed, and the overall status of the various tasks. It includes:

- narrative description of work performed and its relationship to previously planned activities;
- major accomplishments for each task in bullet form; and
- list of presentations and publications.

3. Summary Report (DOE F 1332.2)

The Summary Report provides a concise, top-level summary of schedule, labor, and cost performance against the baseline plans. Most data are presented graphically. The format permits rapid visual comparison of schedule, labor, and cost data. There are three segments: a cost status graph, a labor status graph, and a milestone chart. The cost and labor graphs are cumulative presentations. Planned and actual numerical data presented are for the period specified. Labor and cost variances are shown on a monthly and cumulative basis.

B. SCHEDULE/LABOR/COST

1. Milestone Schedule Plan (DOE F 1332.3)

This section documents the planned project schedule in the standard DOE format (DOE F 1332.3). It includes a summary sheet showing all tasks/elements identified in the Work Breakdown Structure on a single form, and, for complex efforts, a separate sheet for each task/element which gives more detail. The planned events and milestones for each task/element

are included. The standard symbols and charting conventions described on the reverse side of the form are used. The summary sheet includes a line labeled "administration," and denotes events such as subcontract awards, project reviews, etc. An associated milestone log provides a narrative description of events and anticipated dates of initiation/completion.

2. **Labor Plan (DOE F 1332.4)**

This Plan establishes the planned utilization of labor for the term of the contract necessary to complete the planned work. For projects being managed at the fourth level of the WBS or greater, DOE F 1332.4, Labor Plan, is used. This information must also be reported by WBS element.

3. **Cost Plan (DOE F 1332.7)**

This Plan documents the project costs in the standard DOE format (DOE F 1332.7). A summary sheet shows costs for each WBS element on a separate line, and fee on a separate line. For projects being managed to the fourth WBS level, additional forms show cost detail for each task individually.

4. **Milestone Schedule/Status Report (DOE F 1332.3)**

This report shows the completion status of the activities and events that are shown on the Milestone Schedule Plan. The report also shows changes to the planned schedule. Like the Milestone Schedule/Plan, information is reported by WBS element. DOE Form 1332.3 is used for reporting schedule status.

5. **Labor Management Report (DOE F 1332.8)**

This is a periodic report of the status of the labor resources utilization to be compared with the Labor Plan. Labor information is reported by WBS element. DOE Form 1332.8 is used for this report.

6. **Cost Management Report (DOE F 1332.9)**

This report shows the cost status of the contract and is compared with the Cost Plan. Information is reported by WBS element. DOE Form 1332.9 is used for this report.

C. **EXCEPTION REPORTS**

1. **Conference Record**

The "Conference Record" documents for the DOE Contracting Officer's Representative, DOE Contracting Officer, and the contractor an understanding of significant decisions, direction or redirection, or required actions resulting from meetings with DOE representatives. It is required for any meeting, conference, or phone conversation in which a decision is made that may change the schedule, labor, cost, or technical aspects of the contractual agreement or the approved base-line plans. The report shall contain the following information as applicable:

- a. Report title ("Conference Record"), number, and the date prepared.
- b. Contract title and number, and the contractor's name and address.
- c. Date of meeting or telephone conversation, with a list of those involved and their titles.
- d. Subject(s) discussed, decisions reached, and directions given.
- e. Variances from previous directions and conclusions.
- f. Required actions.
- g. Distribution.
- h. Signature of preparer.

2. **Hot Line Report**

- a. The "Hot Line" Report may be used to report a major breakthrough in research, development, or design; an event causing a significant schedule slippage or cost overrun; an environmental, safety and health violation; achievement of or failure to achieve an important technical objective; or any requirement for quickly documented direction or redirection. The report shall be submitted by the most rapid means available, usually electronic, and should confirm telephone conversations with DOE representatives. Identification as a "Hot Line Report" serves notice at each link in the delivery chain that speed in handling is required. Unless otherwise agreed by the parties involved, DOE is expected to take action and respond in a similarly speedy manner. The report should include:
 1. Contractor's name and address;
 2. Contract title and number;
 3. Date;
 4. Brief statement of problem or event;
 5. Anticipated impacts; and
 6. Corrective action taken or recommended.
- b. Hot line reports shall document the incidents listed below, in addition to those required by the Uniform Reporting System (i.e., Paragraph A above):
 1. Any single fatality or injuries requiring hospitalization of five or more individuals is to be immediately reported.

2. Any significant environmental permit violation is to be reported as soon as possible, but within 24 hours of the discovery of the incident.
 3. Other incidents that have the potential for high visibility in the media are to be reported as quickly as possible, but within 24 hours following discovery.
 4. Any failure resulting in damage to Government-owned equipment in excess of \$50,000 is to be reported as quickly as possible, but within 24 hours of the discovery of the failure.
 5. Any unplanned event which is anticipated to cause a schedule slippage or cost increase significant to the project is to be reported within 24 hours.
 6. Any verbal or written Notice of Violation of any Environmental, Safety, and Health statutes arising from the performance of this contract is to be immediately reported.
 7. Any accidental spill or release which is in violation of any Environmental, Safety, and Health statutes arising from the performance of this contract is to be immediately reported, but within 24 hours of the discovery of the accident.
 8. Any incident which causes a significant process or hazard control system failure, or is indicative of one which may lead to any of the above defined incidents, is to be reported as soon as possible, but within 5 days of discovery.
- c. The requirement to submit Hot Line Reports for the incidents identified in b.1, b.2, b.3, b.6, or b.7 is for the sole purpose of enabling DOE officials to respond to questions relating to such events from the media and other public.
 - d. When an incident is reported in accordance with b.4, b.5, b.6, b.7, or b.8, the contractor shall conduct an investigation of its cause and make an assessment of the adequacy of resultant action. A written report is required no later than ten (10) calendar days following the incident and shall include an analysis of the pertinent facts regarding the cause, and a schedule of the remedial events and time periods necessary to correct the action.
 - e. When an event results in the need to issue a written or verbal statement to the local media, the statement is to be cleared first, if possible, by the FETC Office of Institutional Development and coordinated with the Government's Contracting Officer Representative.

D. PERFORMANCE MEASUREMENT

The importance and complexity of major system acquisitions and major projects require assurance that the contractor employs effective management control on contracted work. A Management Control System Description and a Work Breakdown Structure Dictionary are normally required of a contractor as part of "The Management Plan" when the cost and schedule control systems criteria are applied to a contract.

1. **Management Control System Description**
2. **WBS Dictionary**
 - i. **Index**
 - ii. **Element Definition**

Cost Performance Reports (Performance Measurements)(Support Service)

a. **Format 1 - WBS (DOE F 1332.12)**

This report is used to report cost and schedule performance by work breakdown structure element. It is usually limited to level 3 of the contractor work breakdown structure. Reporting at lower levels of the work breakdown structure may be required for critical activities.

b. **Format 2 - Function (DOE F 1332.13)**

This report is used to report cost and schedule performance in accordance with the contractor's internal organizational structure. The totals on this report are consistent with the totals in Format 1. Format 2, in conjunction with Format 1, provides a two-dimensional view of the contractor's cost and schedule performance.

c. **Format 3 - Baseline (DOE F 1332.14)**

The report format provides a monthly update of the performance measurement baseline to reflect the overall effects of changes made during the month. It also provides a summary track from the original contract negotiated cost to current costs (negotiated and unpriced).

E. **TECHNICAL**

1. Preparation

- a. General. The Contractor is responsible for providing all technical reports that are identified in the Reporting Requirements Checklist.

The Contractor shall submit one good quality hard copy using either permanent or alkaline paper plus an electronic version of each technical report, including, but not limited to, all text, tables, diagrams, photographs, schematics, graphs, and charts. Electronic reports shall be submitted in both the Adobe Acrobat Portable Document Format (PDF) and ASCII.

The Title Page Form Maker Template must be submitted as a separate file (named as stated in 2(C) below) utilizing the Title Page Form Maker provided to you on a diskette. The Title Page Form Maker must be installed on a hard drive and must be run in a Windows environment. Instructions for using the Form Maker are included as a file on the diskette.

- b. Organization of Technical Reports. The following sections should be included (as appropriate) in technical reports in the sequence shown:

Title Page*
Disclaimer*
Abstract*
Table of Contents
List(s) of Graphical Materials
Executive Summary
Introduction
Results and Discussion
Conclusion
References
Bibliography
List of Acronyms and Abbreviations
Appendices (if necessary)

* Any section denoted by an asterisk is required in all technical reports.

The Title Page of the report itself must contain the following information IN THE FOLLOWING SEQUENCE:

Report Title

Type of Report (Quarterly, Semi-Annual, Annual, Topical, Final, etc.)

Reporting Period Start Date

Reporting Period End Date

Principal Author(s)

Date Report was issued (Month [spelled out] and Year [4 digits])

DOE Award Number (e.g., DE-AC26-97FT12345)

Name and address of submitting organization. (This section should also contain the name and address of significant contractors or subcontractors who participated in the production of the report.)

The Disclaimer must follow the title page, and must contain the following paragraph:

This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or

any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof.

- c. Other Documents Not Identified in the Reporting Requirements Checklist (Journal Articles, Conference Papers and Proceedings, etc.). The Contractor shall submit an electronic version of each such document, including, but not limited to, all text, tables, diagrams, photographs, schematics, graphs, and charts. Such documents shall be submitted in both the Adobe Acrobat Portable Document Format (PDF) and ASCII.
- d. Company Names and Logos. Except as indicated in B. above, company names, logos, or similar material should not be incorporated into reports.
- e. Copyrighted Material. Copyrighted material should not be submitted as part of a report unless written authorization to use such material is received from the copyright owner and is submitted to DOE with the report.
- f. Measurement Units. All reports to be delivered under this instrument shall use the SI Metric System of Units as the primary units of measure. When reporting units in all reports, primary SI units shall be followed by their U.S. Customary Equivalents in parentheses ().

The Contractor shall insert the text of this clause, including this paragraph, in all subgrants or subcontracts under this contract.

Note: SI is an abbreviation for "Le Systeme International d'Unites."

2. Electronic Media Standard

- a. File Format. Production of high-quality, electronic documents is dependent on the quality of the input that is provided. Thus, the Contractor shall submit an electronic version of all reports in the Adobe Acrobat Portable Document Format (PDF). Each report shall be an integrated file that contains all text, tables, diagrams, photographs, schematics, graphs, and charts.
- b. Submission Format. The electronic file(s) shall be submitted via diskette, file transfer protocol (ftp), or CD-ROM. Diskettes or CD-ROMs must be labeled as follows, and if the ftp alternative is used, an e-mail message sent in conjunction with the ftp file, or a companion ftp file, must contain the following information:

DOE Award Number

Type of Report(s) (Quarterly, Semi-Annual, Annual, Topical, Final)

Reporting Period (if applicable)

Name of submitting organization

Name, phone number and fax number of preparer

Diskette: Diskettes must be 3.5" double-sided, high-density (1.4 M Byte capacity). If file compression software is used to transmit a PDF file spanning more than one diskette, PKZIP from PKWare, Inc., is the required compression software. For diskettes only: State the number of diskettes in the set (e.g., 1/3)

ftp: At the Contractor's discretion, DOE will provide an unsecured ftp location for electronic transmission of documents. Only final versions of technical reports may be submitted using the ftp alternative.

CD-ROM: The electronic file(s) may be submitted on an ISO9660-format CD-ROM.

- c. File Naming. In naming the electronic file, awardee shall use the standard eight-character naming convention for the main file name, and "PDF" as the three-character extension.

For the main file name, the first five characters are the last five digits from the award number; e.g., for Award Number DE-AC26-97FT12345, the first five characters are 12345.

The next character is a letter that corresponds to the type of report: R is for the Technical Report.

The remaining two characters indicate the chronological number of the particular type of report; e.g., Quarterly Technical Progress Reports for a 5-year award are numbered R01 through R20. If monthly, annual, and a Final Technical Report are also required, the numbers would run from R01 through R86 (60 monthly reports, 20 quarterly reports, 5 annual reports, and 1 final report).

Thus, the main file name for the Sixth Quarterly Technical Progress Report under Award No. DE-AC26-97FT12345 (and no other technical progress reports are required) would be 12345R06.

There will be three files submitted. The Technical Report file name for the PDF file would be 12345R06.PDF. The Technical Report file name for the ASCII file will be 12345R06.TXT. The Title page will automatically name itself when saved to a disk in the a: or b: drive and will not be a PDF file.

3. Reports

a. **Technical Progress Report (Quarterly, Semi-Annual and Annual)**

Technical progress reports shall contain the sections identified in Organization of Technical Reports above.

The Abstract shall be a concise summary of the report.

The Executive Summary will be a statement of the original objectives of the effort and a concise summary of the progress achieved during the reporting period.

The body of the report should contain a full account of progress, problems encountered, plans for the next reporting period, and an assessment of the prospects for future progress.

The Technical Progress Report should include sufficient detail to allow the work to be reproduced by others. Results and reduced data shall be presented together with a discussion of the relevance of the findings. When experimental systems and/or procedures are being utilized for the first time, they shall be described in detail. This description shall contain detailed information on equipment and procedures utilized, as well as providing a rationale for their use. All data reduction and transformation methods shall be fully documented.

Informational items in technical reports shall include:

- Experimental Apparatus

A comprehensive description, including dimensioned drawings or sketches, of the apparatus and associated diagnostic measurement equipment employed to perform the experimental research.

- Experimental and Operating Data

All experimental data acquired during the course of research including detailed characterization of the sample materials subjected to experimentation.

- Data Reduction

A complete description of the methods employed to transform raw measured data into a form usable for interpretation along with any assumptions or restrictions inherent in the method and the resultant reduced data.

- Hypothesis and Conclusions

Logic for drawing conclusions or developing hypotheses shall be clearly stated along with applicable assumptions or restrictions.

b. **Final Technical Report**

The Final Technical report shall contain the sections identified in Organization of Technical Reports above.

The Abstract shall be a concise summary of the report.

The Executive Summary will be a statement of the original objectives of the effort and a concise summary of the work performed during the contract period.

The Final Technical Report shall document and summarize all work performed during the contract period in a comprehensive manner. It shall also present findings and/or conclusions produced as a consequence of this work.

This report shall not merely be a compilation of information contained in subsequent quarterly, or other technical reports, but shall present that information in an integrated fashion, and shall be augmented with findings and conclusions drawn from the research as a whole.

c. **Topical Report**

Topical reports shall contain the sections identified in Organization of Technical Reports above.

The Abstract shall be a concise summary of the report.

The Executive Summary will be a statement of the original objectives of the effort and a concise summary of the progress achieved during the reporting period.

These reports usually provide a comprehensive statement of the technical results of the work performed for a specific task or subtask of the SOW, or detail significant new scientific or technical advances. If required, DOE shall review and approve the report outline prior to submission of the report.

F. **Environmental Reporting**

In response to the requirements of the National Environmental Policy Act of 1969 (NEPA) and other related environmental statutes,¹ the Federal Energy Technology Center (FETC) requires the submission of various documents that assess the environmental aspects and projected impacts of all of its proposed actions. These documents include the following: (1) Hazardous Substance Plan, (2) Hazardous Waste Report, (3) Environmental Compliance Plan, (4) Environmental Monitoring Plan, and (5) Environmental Status Reports.

The environmental information provided in the above reports will enable FETC to fulfill its responsibilities under NEPA² and to monitor the proposer's compliance with other environmental regulations. The implementation of any task associated with a proposed action will be dependent upon DOE submitting and acquiring the approval (from DOE's Office of Environment, Safety, and Health) of necessary NEPA documentation, as well as the proposer's proven compliance with other applicable

The related statutes include, but are not limited to the National Historic Preservation Act, the Endangered Species Act, the Fish and Wildlife Coordination Act, the Floodplain/Wetlands Regulations, the Coastal Zone Management Act, the Farmland Protection Policy Act, the American Indian Religious Freedom Act, the Wild and Scenic Rivers Act, the Resource Conservation & Recovery Act, Comprehensive Environmental Response, the Compensation and Liability Act, Clean Air Act, and Clean Water Act.

Additional information about the requirements of the National Environmental Policy Act can be found in the DOE NEPA Compliance Guide and 40 CFR 1021.

environmental requirements, such as air permits, or RCRA manifests. Therefore, to minimize the risk of project delays, it is imperative that these reports be submitted in a timely manner.

The information contained herein specifies the basic environmental requirements for this procurement action, but it is not to be interpreted as containing all necessary information for any given project. Likewise, certain aspects of the requirements may not be applicable. Accordingly, the level of information provided should be sufficient for DOE to assess the environmental implications of the proposed action.

1. **Hazardous Substance Plan**

The Contractor shall submit a **Hazardous Substance Plan** not later than thirty (30) days after initial contract award. The Plan shall specifically identify each Hazardous Substance (as defined under 40 CFR 261, Subpart D, entitled Lists of Hazardous Wastes) **anticipated** to be purchased, utilized or generated in the performance of this contract. For **each** such Hazardous Substance identified, the Plan shall specifically provide the following information:

Description of Substance/Chemical

EPA Hazardous Waste Number

EPA Hazard Code

Anticipated Quantity to be purchased, utilized or generated

Anticipated Hazardous Waste Transporter

Anticipated Hazardous Waste Disposal Facility Contractor and Location
(City/Municipality, State)

Anticipated Treatment Method

2. **Hazardous Waste Report**

The Contractor shall submit a **Hazardous Waste Report** with the final technical report. The Report shall specifically identify each Hazardous Waste (as defined under 40 CFR 261, Subpart D, entitled Lists of Hazardous Wastes) **actually** utilized, or generated in the performance of this contract. For **each** such Hazardous Waste identified, the Report shall specifically provide the following information:

Description of Substance/Chemical

EPA Hazardous Waste Number

EPA Hazard Code

Actual Quantity Disposed

Actual Hazardous Waste Transporter

Actual Hazardous Waste Disposal Facility Contractor and Location (City/Municipality, State)

Actual Disposal Date

Actual Treatment Method

The Hazardous Waste Report is intended as a final reconciliation of anticipated versus actual Hazardous Substances purchased, utilized, or generated in the performance of this contract.

3. **Environmental Compliance Plan**

The Environmental Compliance Plan (ECP) shall be submitted within thirty (30) days of contract award and should outline an approach to implementing an environmental monitoring and reporting strategy. This strategy should include plans for submitting a Quality Assurance/Quality Control Plan and Pollution Prevention Plan,³ conducting environmental monitoring of the proposed action and submitting Environmental Status Reports. The ECP should also address any concerns and/or deviations associated with the reporting and monitoring documents.

Suggested Format for Environmental Compliance Plan (ECP)

I. SUMMARY OF PROPOSED PROJECT

II. FEDERAL REGULATORY COMPLIANCE (Discuss how each of the following will be complied with, if applicable.)

- A. National Historic Preservation Act
- B. Endangered Species Act
- C. Fish and Wildlife Coordination Act
- D. Floodplain/Wetlands Regulations
- E. Coastal Zone Management Act
- F. Farmland Protection Policy Act
- G. American Indian Religious Freedom Act
- H. Wild and Scenic Rivers Act
- I. Resource Conservation & Recovery Act
- J. Comprehensive Environmental Response, Compensation and Liability Act
- K. Clean Air Act
- L. Clean Water Act
- M. Pollution Prevention Act

III. STATE AND LOCAL REGULATORY COMPLIANCE (Discuss how any state and local regulations will be complied with.)

4. **Environmental Monitoring Plan**

IF DOE's analysis of the potential environmental impacts of the proposed action (through review of the proposer's Environmental Volume or Environmental Assessment Questionnaire) identifies a need for environmental monitoring, the Contractor will also submit a draft Environmental Monitoring Plan (EMP) within thirty (30) days of contract award. After consultation with DOE, the draft EMP will be revised, as necessary, and a final EMP will be in place prior to the initiation of any activities that are not categorically excluded under NEPA. The EMP may be revised as the project dictates.

³If an ECP is required the format of the QA/QC Plan and Pollution Prevention Act will be determined in conjunction with FETC environmental staff. ³

The EMP should evaluate air, land, and water resources, and waste production, using three specific types of monitoring:

- A. Compliance Monitoring,
- B. Unregulated Pollutant Monitoring, and, if necessary,
- C. NEPA-related Monitoring.

Compliance monitoring, i.e., environmental and health monitoring required by Federal, State, and local regulatory agencies, should detail the location, frequency, duration, and substances being monitored. All necessary applications, permits, and licenses should be identified.

Unregulated pollutants, both the amount and type of each, should be monitored. This includes those pollutants (a) not currently regulated by State or Federal laws but for which new regulations are expected in the near future; (b) which may cause environmental or health concerns based on hazardous/toxic compound lists; and (c) which are expected in discharge streams based on test data or process chemistry.

Finally, NEPA-related monitoring should be implemented as necessary. It should identify and/or confirm the impacts of the substances produced and performance of the specific technologies as predicted in the NEPA document. It should also include reporting on any mitigation action identified in the Finding of No Significant Impact or Record of Decision as a condition of approval of the proposed action (reported annually).

5. Environmental Status Report

After approval of the comprehensive EMP, and as deemed necessary by the DOE Project Manager, the results of sampling conducted and other environmental compliance information should be submitted in the form of Environmental Status Reports (ESRs). The necessity of these reports will depend on the size and nature of the project; they will be required quarterly.

The data reported in the ESRs will supplement the project's NEPA documentation. It will also ensure that project impacts (a) do not violate applicable environmental regulations and (b) are not detrimental to human health or the environment. The information will also provide a database that can be utilized to mitigate environmental problems associated with commercializing any proposed technologies.

Suggested Format for Environmental Status Reports

- I. SUMMARY OF MONITORING PERFORMED (Compliance and Supplemental Monitoring)
 - A. MONITORING PARAMETERS
 - 1. Location
 - 2. Stage of Project (e.g., preconstruction, operational, etc.)
 - 3. Source to be Monitored (e.g., stack emissions)

4. Method of Monitoring

B. DATA ANALYSIS

1. Identification/characterization of emissions, effluents, etc. and their concentration
2. Identification of problem areas/non-compliance
3. Suggestions for modifications/changes to the system
4. Recommendations to revise Monitoring Plan

II. PERMIT COMPLIANCE STATUS

- A. Attach copies of compliance reports, analyses, correspondence between the Contractor and the appropriate regulatory agencies.
- B. Attach copies of all manifests, shipping documents, etc. pertaining to the disposal of wastes generated from the project.

6. Toxic Chemical Release Inventory Form

As part of the Emergency Planning and Community Right-to-Know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act, facilities are required to submit a Toxic Chemical Release Inventory (Form R) to report to the U.S. Environmental Protection Agency the release of toxic chemicals. Copies of this form will be made available to all contractors/ grantees requesting it from their respective Contract Specialist. Contractors/grantees are only required to submit this form if the facility in which they are working manufactures 25,000 lbs. per year, or uses 10,000 lbs. per year of a toxic chemical/compound listed in 40 CFR 372 Subpart D - specific Toxic Chemical Listings.

Questions regarding the form can be addressed to: EPRCA Reporting Center, P.O. Box 3340, Merrifield, VA 22116-3348, ATTN: Toxic Chemical Release Inventory.

7. Notification of Environmental, Safety, and Health Violations

Written Notice of Violation of any Federal Environmental, Safety and Health statutes including those listed below (or any state, county or municipal law deriving from such federal statute) arising from the performance of this contract, that is received by the Contractor from any Federal, state, county or municipal authority shall be immediately communicated to the Government Contracting Officer Representative (COR) identified under Part I, Section G.#. Such communication shall be by telephone and shall occur not later than twenty-four (24) hours following the date of written Notice of Violation.

The telephone communication shall be followed by written report to the COR, to be delivered in an original and two (2) copies not later than ten (10) days following the date of the written Notice of Violation. Such written report shall include a the Violation, an analysis of the pertinent facts

preceding the violation, and a schedule of the remedial events necessary to bring the contractor into compliance.

Environmental, Safety and Health Statutes

Clean Air Act
Clean Water Act
Resource Conservation and Recovery Act
Comprehensive Environmental Response, Compensation, and Liability Act
Toxic Substance Control Act
Occupational Safety and Health Act
Safe Drinking Water Act

8. **Notification of Accident, Spill, or Unregulated Release**

Any accident, spill, or unregulated release which is in violation of any Federal Environmental, Safety and Health statutes including those listed below (or any state, county or municipal law deriving from such federal statute) arising from the performance of this contract, upon its being reported to the proper Federal, state, county or municipal authority, shall be immediately communicated to the Government Contracting Officer Representative (COR) identified under Part I, Section G.#. Such communication shall be by telephone and shall occur not later than twenty-four (24) hours following the date of written Notice of Violation.

The telephone communication shall be followed by written report to the COR, to be delivered in an original and two (2) copies not later than ten (10) days following the incident being reported. Such written report shall include a copy of the violation, an analysis of the pertinent facts preceding the incident, and a schedule of the remedial events necessary to bring the contractor into compliance.

Environment Safety and Health Statutes

Clean Air Act
Clean Water Act
Resource Conservation and Recovery Act
Comprehensive Environmental Response, Compensation, and Liability Act
Toxic Substance Control Act
Occupational Safety and Health Act
Safe Drinking Water Act

G. **Other**

1. **Key Personnel Staffing Report**

A report shall be filed providing information on the number of hours (by WBS element/task) that each of the key personnel listed in the contract have applied to the contract during the reporting time period.

2. **Subcontract Reporting**

With the exception of a small business, reports listed below are required to be submitted by the prime contractor for each contract containing a subcontracting plan. These forms collect subcontract award data from prime contractors/subcontractors that: (a) hold one or more contracts over \$500,000 (over \$1,000,000 for construction of a public facility); and (b) are required to report subcontracts awarded to Small Business (SB), Small Disadvantaged Business (SDB), and Women-Owned Small Business (WOSB) concerns under a subcontracting plan. Subcontract award data reported on these forms by prime contractors/subcontractors shall be limited to awards made to their immediate subcontractors.

- a. **Subcontracting Report (SF294)**
- b. **Summary Subcontracting Report (SF295)***

* modified in accordance with DEAR 952.226-73, Energy Policy Act Subcontracting Goals and Reporting Requirements.

3. **SOFTWARE**

Major pieces of computer software developed largely as a result of the performance of this effort shall be delivered to the Government shortly after development or at the completion of the effort, as appropriate. The software shall be delivered together with sufficient documentation concerning its development and use to permit future use by others, and to provide a firm basis for allowing modifications to be made in any subsequent development efforts. Unless otherwise specified, software shall be written in a standard computer language such as Fortran 77, operate on the VAS VMS version 5.1 operating system or an IBM PC-compatible personal computer running MS/DOS, and should not incorporate or be dependent on the use of proprietary software.

It is important to note that the source code, executable files, and appropriate manuals shall be required to be made available to the public through DOE publications.

H. **PROPERTY REPORTS**

1. **SEMI-ANNUAL SUMMARY REPORT OF DOE-OWNED PLANT AND CAPITAL EQUIPMENT DOE-F4300.3**

| <u>Period End Date</u> | <u>Due Date</u> |
|------------------------|-----------------|
|------------------------|-----------------|

| | |
|---------------------------------|------------------------------|
| February 28 and August 31 | April 15 September 15 |
|---------------------------------|------------------------------|

Description and Format

FETC Handbook entitled "Management of Government Property in the Possession of Contractors" Use DOE F4300.3

Use Form FETC F 4220.35 Format (enclosed).

2. **REPORT OF PHYSICAL INVENTORY OF PERMANENTLY AFFIXED PLANT**

Period End Date Due Date

Not less 10 years from award date
frequently than
every 10 years

Description and Format

See FAR 45.5 and DEAR 945.5.

3. **REPORT OF PHYSICAL INVENTORY OF CAPITAL EQUIPMENT**

Period End Date Due Date

Not less 2 years from award date
frequently than and every 2 years thereafter
every 2 years

Description and Format

See FAR 45.5 and DEAR 945.5.

4. **REPORT OF PHYSICAL INVENTORY OF SENSITIVE ITEMS**

Period End Date Due Date

Not less 1 year from date of award
frequently and yearly thereafter
than annually

Description and Format

See FAR 45.5/.6 and DEAR 945.5/6.

5. **REPORT OF TERMINATION OR COMPLETION INVENTORY**

Period End Date Due Date

Immediately upon Immediately upon
completion or completion or termination date
termination

Description and Format

See FAR 45.5/.6 and DEAR 945.5/6. Use form enclosed with FETC Handbook.

6. **REPORT OF CONTRACTOR'S PROPERTY MANAGEMENT SYSTEM**

Period End Date Due Date

None Within 6 months of award

Description and Format

This report shall consist of the Contractor's comprehensive written property management system. It shall address the Contractor's written system for controlling, protecting, preserving and maintaining all Government property. Report format shall be consistent with Contractor's system and shall as a minimum enable comprehensive evaluation by the Government.

7. **ANNUAL REPORT OF GOVERNMENT-OWNED PROPERTY**

Period End Date Due Date

September 30 October 15

Description and Format

See FAR 45.505-14.

U.S. Department of Energy
Federal Energy Technology
Billing Instructions
(Cost Reimbursement Contracts)

These instructions are provided for use by the Contractor in the preparation and submission of vouchers requesting reimbursement for work performed under cost reimbursement contracts. Compliance with these instructions will reduce correspondence and other causes for delay to a minimum, and will thus promote prompt payments to the Contractor.

- I. **VOUCHER FORM.** In requesting reimbursement, the Contractor shall use Standard Form (SF) 1034, "Public Voucher for Purchases and Services Other Than Personal" (attached), accompanied by Form 4220.50, "Statement of Cost" (attached), and provide additional supporting documentation as required (sample format attached).
- II. **PREPARATION OF SF 1034** (Complete as directed by numerical guidance below where annotated in the sample form attached)
- (1) Leave these blocks blank.
 - (2) Enter Voucher Number consecutively, commencing with "1".
 - (3) Enter date voucher is prepared.
 - (4) Enter contract number and date of contract award.
 - (5) Enter contractor's name and remittance address.
 - (6) Include telephone number of office responsible for submitting voucher.
 - (7) If a task order or project agreement is involved in the billing, enter the number and date, otherwise, leave blank.
 - (8) Provide the inclusive period the billing covers (e.g. "Jan. 199X" or "Jan. - Mar. 199X").
 - (9) Enter the dollar amount. Amount claimed must agree with the amount reflected in the attached Statement of Cost.
 - (10) Check appropriate block for the type of payment for which reimbursement is requested.
- III. **STATEMENT OF COST:** This form shall be completed so as to make due allowance for the Contractor's cost accounting system. The costs claimed shall be only those recorded costs (including cost sharing) which are authorized for billing by the payment provisions of the contract. Indirect rates claimed shall reflect actual experience, but in no event shall exceed those rates approved by the Contracting Officer for billing purposes. The Certification (block 11) must be signed by a responsible official of the Contractor. Additional supporting data for claimed costs shall be provided in such form and reasonable detail as outlined below.
- IV. **SUPPORTING DOCUMENTATION:** Direct costs (e.g. labor, equipment, travel, supplies, etc.) claimed for reimbursement on the Statement of Cost must be adequately supported. The level of detail provided must clearly indicate where the funds were expended. For example, support for labor costs must include the labor category (e.g. program manager, senior engineer, technician, etc.), the hourly rate, and the labor cost per category; equipment costs must be supported by a list of the equipment purchased, along with the item's cost; supporting data for travel must include the destination of the trip, number and labor category of travelers, transportation costs, per diem costs, and purpose of trip; and supplies should be categorized by the nature of the items (e.g. office, lab, computer, etc.) and the dollar amount per category. Indirect rates used for billings must be clearly indicated, as well as their basis of application. Attachment 3 is an example of the minimum level of supporting documentation required for each voucher submitted for reimbursement. A Standard Form 1035, "Public Voucher for Purchases and Services Other Than Personal, Continuation Sheet" was utilized to provide the supporting documentation in this example. Use of this standard form is optional; the Contractor may utilize its own computer-generated reports (e.g. payroll distribution reports, travel reports, etc.) to provide the necessary supporting documentation.
- V. **BILLING PERIOD:** The voucher shall be submitted no more frequently than monthly (unless prior written consent for more frequent billing is obtained from the Contracting Officer). The period of performance covered by the vouchers should be the same as covered by any required monthly technical progress reports and/or monthly cost reports.
- VI. **SUBMISSION PROCEDURE:** Submit original voucher and three (2) copies (each containing a Statement of Cost and adequate supporting documentation) to the addressees prescribed by in Part I, Section G of this contract.

| Standard Form 1035 Revised January 1980 Department of the Treasury 1 TFRM 4-2000 | | PUBLIC VOUCHER FOR PURCHASES AND SERVICES OTHER THAN PERSONAL | | | | VOUCHER NO. (2) | |
|--|--|--|--------------------------------|-------------------------------|------------------------------|---------------------|--|
| U.S. DEPARTMENT, BUREAU OR ESTABLISHMENT AND LOCATION U.S. Department of Energy Federal Energy Technology Center | | | | Date Voucher Prepared (3) | | SCHEDULE NO. (1) | |
| | | | | Contract No. / Date (4) | | PAID BY (1) | |
| | | | | Requisition No. / Date (1) | | | |
| PAYEE'S NAME AND ADDRESS (5) | | | | | DATE INVOICE RECEIVED (1) | | |
| | | | | | DISCOUNT TERMS (1) | | |
| | | | | | PAYEE'S ACCOUNT NO. (1) | | |
| SHIPPED FROM TO WEIGHT | | | | GOVERNMENT B/L NUMBER (1) | | | |
| NUMBER AND DATE OF ORDER | DATE OF DELIVERY OR SERVICE | ARTICLES OR SERVICES <small>(Enter description, item number of Contract or Federal Supply Schedule, and other information deemed necessary)</small> | QUAN-TITY | UNIT PRICE | | AMOUNT | |
| | | | | COST | PER | (1) | |
| (7) | (8) | For reimbursement of costs incurred under the subject contract as detailed in the attached Statement of Costs and supporting documentation | | | | (9) | |
| (Use continuation sheet(s) if necessary)(PAYEE MUST NOT use the space below) | | | | | | TOTAL (10) | |
| PAYMENT (10) <input type="checkbox"/> Provisional <input type="checkbox"/> Complete <input type="checkbox"/> Partial <input type="checkbox"/> Final <input type="checkbox"/> Progress <input type="checkbox"/> Advance | APPROVED FOR =\$ | EXCHANGE RATE = \$1.00 | Differences | | | | |
| | BY: | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | Amount verified; correct for | | | | |
| TITLE: | | Signature or Initials | | | | | |
| Pursuant to the authority vested in me, I certify that this voucher is correct and proper for payment. | | | | | | | |
| _____ (Date) (Authorized Certifying Official) (Title) | | | | | | | |
| ACCOUNTING CLASSIFICATION | | | | | | | |
| | | | | | | | |
| PAID BY | CHECK NUMBER ON ACCOUNT OF U.S. TREASURY | | CHECK NUMBER ON (Name of Bank) | | | | |
| | CASH \$ DATE | | PAYEE | | | | |
| 1 When stated in foreign currency, insert name of currency 2 If the ability to certify and authority to approve are combined in one person, only one signature is necessary; otherwise the approving officer will sign in the space provided, over his title. 3 When a voucher is receipted in the name of a company of corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary", or "Treasurer", as the case may be. | | | | | PER | | |
| | | | | | TITLE | | |

PRIVACY ACT STATEMENT

The information requested on this form is required under the provisions of 31 U.S.C. 82b and 82c, for the purpose of disbursing Federal money. The information requested is to identify the particular creditor and the amounts to be paid. Failure to furnish this information will hinder discharge of the payment obligation.

| | | | | | | | |
|--|--|--|------------------------------|----------------------------------|-------------------|------------------------------|--|
| Standard Form 1035 Revised January 1980 Department of the Treasury 1 TFRM 4-2000 | | PUBLIC VOUCHER FOR PURCHASES AND SERVICES OTHER THAN PERSONAL | | | | VOUCHER NO. (2) | |
| U.S. DEPARTMENT, BUREAU OR ESTABLISHMENT AND LOCATION U.S. Department of Energy Federal Energy Technology Center | | | | Date Voucher Prepared (3) | | SCHEDULE NO. (1) | |
| | | | | Contract No. / Date (4) | | PAID BY (1) | |
| | | | | Requisition No. / Date (1) | | | |
| PAYEE'S NAME AND ADDRESS (5) | | | | | | DATE INVOICE RECEIVED (1) | |
| | | | | | | DISCOUNT TERMS (1) | |
| | | | | | | PAYEE'S ACCOUNT NO. (1) | |
| SHIPPED FROM | | | | TO | | WEIGHT | |
| | | | | | | GOVERNMENT B/L NUMBER (1) | |
| NUMBER AND DATE OF ORDER (7) | DATE OF DELIVERY OR SERVICE (8) | ARTICLES OR SERVICES <small>(Enter description, item number of Contract or Federal Supply Schedule, and other information deemed necessary)</small> For reimbursement of costs incurred under the subject contract as detailed in the attached Statement of Costs and supporting documentation | QUANTITY | UNIT PRICE | | AMOUNT | |
| | | | | COST | PER | (1) | |
| | | | | | | (9) | |
| (Use continuation sheet(s) if necessary)(PAYEE MUST NOT use the space below) | | | | | | TOTAL (10) | |
| PAYMENT (10) <input type="checkbox"/> Provisional <input type="checkbox"/> Complete <input type="checkbox"/> Partial <input type="checkbox"/> Final <input type="checkbox"/> Progress <input type="checkbox"/> Advance | APPROVED FOR =\$ | EXCHANGE RATE = \$1.00 | Differences | | | | |
| | BY: | | | | | | |
| | | | | | | | |
| | | | Amount verified; correct for | | | | |
| | TITLE: | | Signature or Initials | | | | |
| Pursuant to the authority vested in me, I certify that this voucher is correct and proper for payment. <div style="display: flex; justify-content: space-between;"> _____ (Date) _____ (Authorized Certifying Official) _____ (Title) </div> | | | | | | | |
| ACCOUNTING CLASSIFICATION | | | | | | | |
| | | | | | | | |
| PAID BY | CHECK NUMBER | ON ACCOUNT OF U.S. TREASURY | | CHECK NUMBER | ON (Name of Bank) | | |
| | CASH \$ | DATE | | PAYEE | | | |
| 1 When stated in foreign currency, insert name of currency 2 If the ability to certify and authority to approve are combined in one person, only one signature is necessary; otherwise the approving officer will sign in the space provided, over his title. 3 When a voucher is receipted in the name of a company of corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary", or "Treasurer", as the case may be. | | | | PER | | | |
| | | | | TITLE | | | |

PRIVACY ACT STATEMENT

The information requested on this form is required under the provisions of 31 U.S.C. 82b and 82c, for the purpose of disbursing Federal money. The information requested is to identify the particular creditor and the amounts to be paid. Failure to furnish this information will hinder discharge of the payment obligation.

| Standard Form 1035 September 1973 4 Treasury FRM 2000 1035-110 | <div>--- SAMPLE ---</div> <div>PUBLIC VOUCHER FOR PURCHASES AND SERVICES OTHER THAN PERSONAL</div> <div>Continuation Sheet</div> | Voucher No. Schedule No. Sheet No. | | | | |
|---|---|--|------------------|--------------------------|-------------------|---|
| U.S. DEPARTMENT, BUREAU OR ESTABLISHMENT | | | | | | |
| NUMBER AND DATE OF ORDER | DATE OF DELIVERY OR SERVICE | ARTICLES OR SERVICES <small>(Enter description, item number of Contract or Federal Supply Schedule, and other information deemed necessary)</small> | QUAN- TITY | UNIT PRICE | | AMOUNT |
| | | | | COST | PER | |
| --- SAMPLE --- | | | | | | |
| | 1/ 1/95- 2/ 1/95 | DIRECT LABOR • Project Manager • Senior Engineer • Technician | 80 120 160 | 37.50 30.00 20.00 | hr. hr. hr. | \$ 3,000.00 3,600.00 <u>3,200.00</u> \$ 9,800.00 |
| | 1/10/95 | EQUIPMENT • Gas Chromatograph (Manufacturer) • Pulverizer (Manufacturer) • 486 Computer (Vendor) | 1 1 1 | 50,000 7,500 2,500 | ea. ea. ea. | \$ 50,000.00 7,500.00 <u>2,500.00</u> \$ 60,000.00 |
| | 1/15/95 | TRAVEL • Destination - Pittsburgh, PA • Purpose - Review Meeting • Traveler(s) - Project Manager • Air Fare • Lodging • Per Diem | 1 2 2 | 500 75 35 | ea. day day | \$ 500.00 150.00 <u>70.00</u> \$ 720.00 |
| | 1/25/95 | SUPPLIES • Laboratory • Office • Computer | 1 1 1 | 1,000 300 200 | Lot Lot Lot | \$ 1,000.00 300.00 <u>200.00</u> \$ 1,500.00 |
| --- SAMPLE --- | | | | | | |

ATTACHMENT B

| | | | |
|--|--|--|--|
| 1. CONTRACTOR NAME | | 2. CONTRACT NO. | 3. VOUCHER NO. |
| 4. CONTRACTOR ADDRESS | | 5. PERIOD OF PERFORMANCE COVERED BY THIS BILLING | |
| 6. <u>CONTRACT AMOUNT</u> : (Face Value) Estimated Cost: \$ _____ Fixed Fee (If Any): \$ _____ TOTAL: \$ _____ | | 7. <u>AMOUNT AUTHORIZED FOR EXPENDITURE</u> : (Obligated) Basic Contract: \$ _____ All Modifications: \$ _____ Contract to Date - TOTAL: \$ _____ | |
| 8. CLAIMED COSTS | | 9. AMOUNT CLAIMED FOR THIS BILLING PERIOD | 10. CUMULATIVE CLAIMED FOR THIS BILLING PERIOD |
| Direct Labor | | \$ | \$ |
| Other Labor | | \$ | \$ |
| Fringe Benefits @ _____% | | \$ | \$ |
| Overhead @ _____% | | \$ | \$ |
| Nonexpendable Items | | \$ | \$ |
| Material and Supplies | | \$ | \$ |
| Equipment | | \$ | \$ |
| Travel | | \$ | \$ |
| #1 Subcontractor: _____ | | \$ | \$ |
| #2 Subcontractor: _____ | | \$ | \$ |
| #3 Subcontractor: _____ | | \$ | \$ |
| Other Direct Costs | | \$ | \$ |
| Adjustments (Explain in 12.) | | \$ | \$ |
| Total Costs (Less G&A) | | \$ | \$ |
| G&A @ _____% | | \$ | \$ |
| Total Costs (WITH G&A) | | \$ | \$ |
| Fee @ _____% (If Any) | | \$ | \$ |
| Total Costs and Fee | | \$ | \$ |
| Credit (Explain in 12.) | | \$ | \$ |
| Contractor's Share (If Any) | | \$ | \$ |
| Government Share | | \$ | \$ |
| 11. CERTIFICATION STATEMENT: I certify that this invoice is correct and in accordance with the terms of the contract, that costs included herein have been incurred, represent payments made by the Contractor except as otherwise authorized in the payments provisions of the contract, and properly reflect the work performed. | | | |
| Typed Name and Title | | Signature | Date |
| 12. EXPLANATION (Continue on additional page(s) as needed.) | | | |

PART III - SECTION J

ATTACHMENT D

List of Government Property - Contractor Acquired

[TBD]

PART III - SECTION J

ATTACHMENT E

List of Government-Furnished Property/Facilities

[TBD]

PART III - SECTION J

ATTACHMENT F

Subcontract Plan *

[TBD]

- * MAY BE REQUIRED in accordance with Part III, Section I, FAR 52.219-9, Small Business, Small Disadvantaged and Women-Owned Small Business Subcontracting Plan and DEAR 952.226-72, “Energy Policy Act Subcontracting Goals and Reporting Requirements”.

PART IV
SECTION K - REPRESENTATIONS, CERTIFICATIONS,
AND OTHER STATEMENTS OF OFFERORS OR QUOTERS

Various statutes and regulations require Federal agencies to obtain certain representations, certifications and other statements from bidders/offerors in connection with the award of contracts. To this end, all bidders/offerors submitting a bid/proposal in response to this solicitation must complete all certifications shown below.

K.1 CERTIFICATION AND DISCLOSURE REGARDING PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS. (FAR 52.203-11, APR 1991)

(a) The definitions and prohibitions contained in the clause, at FAR 52.203-12, Limitation on Payments to Influence Certain Federal Transactions, included in this solicitation, are hereby incorporated by reference in paragraph (b) of this certification.

(b) The offeror, by signing its offer, hereby certifies to the best of his or her knowledge and belief that on or after December 23, 1989:

(1) No Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on his or her behalf in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment or modification of any Federal contract, grant, loan, or cooperative agreement;

(2) If any funds other than Federal appropriated funds (including profit or fee received under a covered Federal transaction) have been paid, or will be paid, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on his or her behalf in connection with this solicitation, the offeror shall complete and submit, with its offer, OMB standard form LLL, Disclosure of Lobbying Activities, to the Contracting Officer; and

(3) He or she will include the language of this certification in all subcontract awards at any tier and require that all recipients of subcontract awards in excess of \$100,000 shall certify and disclose accordingly.

(c) Submission of this certification and disclosure is a prerequisite for making or entering into this contract imposed by section 1352, title 31, United States Code. Any person who makes an expenditure prohibited under this provision or who fails to file or amend the disclosure form to be filed or amended by this provision, shall be subject to a civil penalty of not less than \$10,000, and not more than \$100,000, for each such failure.

K.2 WOMEN-OWNED BUSINESS (FAR 52.204-5, OCT 1995)

(a) *Representation.* The offeror represents that it () is, () is not a women-owned business concern.

(b) *Definition.* “Women-owned business concern,” as used in this provision, means a concern which is at least 51 percent owned by one or more women; or in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and whose management and daily business operations are controlled by one or more women.

K.3 TAXPAYER IDENTIFICATION. (FAR 52.204-3, JUN 1997)

(a) *Definitions.*

“Common parent,” as used in this solicitation provision, means that corporate entity that owns or controls an affiliated group of corporations that files its Federal income tax returns on a consolidated basis, and of which the offeror is a member.

“Corporate status,” as used in this solicitation provision, means a designation as to whether the offeror is a corporate entity, an unincorporated entity (e.g., sole proprietorship or partnership), or a corporation providing medical and health care services.

“Taxpayer Identification Number (TIN),” as used in this solicitation provision, means the number required by the IRS to be used by the offeror in reporting income tax and other returns.

(b) All offerors are required to submit the information required in paragraphs (c) through (e) of this solicitation provision in order to comply with reporting requirements of 26 U.S.C. 6041, 6041A, and 6050M and implementing regulations issued by the Internal Revenue Service (IRS). If the resulting contract is subject to reporting requirements described in FAR 4.903, the failure or refusal by the offeror to furnish the information may result in a 31 percent reduction of payments otherwise due under the contract.

(c) *Taxpayer Identification Number (TIN).*

() TIN: _____.

() TIN has been applied for.

() TIN is not required because:

() Offeror is a nonresident alien, foreign corporation, or foreign partnership that does not have income effectively connected with the conduct of a trade or business in the U.S. and does not have an office or place of business or a fiscal paying agent in the U.S.;

() Offeror is an agency or instrumentality of a foreign government;

() Offeror is an agency or instrumentality of a Federal, state or local government;

() Other. State basis. _____

(d) *Corporate Status.*

- ☐ Corporation providing medical and health care services, or engaged in the billing and collecting of payments for such services;
- ☐ Other corporate entity;
- ☐ Not a corporate entity;
- ☐ Sole proprietorship
- ☐ Partnership
- ☐ Hospital or extended care facility described in 26 CFR 501(c)(3) that is exempt from taxation under 26 CFR 501(a).

(e) *Common Parent.*

☐ Offeror is not owned or controlled by a common parent as defined in paragraph (a) of this clause.

☐ Name and TIN of common parent:

Name _____

TIN _____

K.4 CERTIFICATION REGARDING DEBARMENT, SUSPENSION, PROPOSED DEBARMENT, AND OTHER RESPONSIBILITY MATTERS (FAR 52.209-5, MAR 1996)

(a) The Offeror certifies:

(1) to the best of its knowledge and belief, that:

(i) The Offeror and/or any of its Principals:

(A) Are ☐ are not ☐ presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency;

(B) Have ☐ have not ☐, within a 3-year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, state, or local) contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification

or destruction of records, making false statements, tax evasion, or receiving stolen property; and

(C) Are () are not () presently indicted for, or otherwise criminally or civilly charged by a governmental entity with, commission of any of the offenses enumerated in subdivision (a)(1)(i)(B) of this provision.

(ii) The Offeror has () has not (), within a 3-year period preceding this offer, had one or more contracts terminated for default by any Federal agency.

(2) "Principals," for the purposes of this certification, means officers; directors; owners; partners; and, persons having primary management or supervisory responsibilities within a business entity (e.g., general manager; plant manager; head of a subsidiary, division, or business segment, and similar positions).

This certification concerns a matter within the jurisdiction of an agency of the United States and the making of a false, fictitious, or fraudulent certification may render the maker subject to prosecution under section 1001, title 18, United States Code.

(b) The Offeror shall provide immediate written notice to the Contracting Officer if, at any time prior to contract award, the Offeror learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

(c) A certification that any of the items in paragraph (a) of this provision exists will not necessarily result in withholding of an award under this solicitation. However, the certification will be considered in connection with a determination of the Offeror's responsibility. Failure of the Offeror to furnish a certification or provide such additional information as requested by the Contracting Officer may render the Offeror nonresponsible.

(d) Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by paragraph (a) of this provision. The knowledge and information of an Offeror is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

(e) The certification in paragraph (a) of this provision is a material representation of fact upon which reliance was placed when making award. If it is later determined that the Offeror knowingly rendered an erroneous certification, in addition to other remedies available to the Government, the Contracting Officer may terminate the contract resulting from this solicitation for default.

K.5 TYPE OF BUSINESS ORGANIZATION (FAR 52.215-4, OCT 1997)

The offeror or respondent, by checking the applicable box, represents that:

(a) It operates as () a corporation incorporated under the laws of the State of _____, () an individual, () a partnership, () a nonprofit organization, or () a joint venture.

(b) If the offeror or quoter is a foreign entity, it operates as () an individual, () a partnership, () a nonprofit organization, () a joint venture, or () a corporation, registered for business in _____ (country).

K.6 PLACE OF PERFORMANCE (FAR 52.215-6, OCT 1997)

(a) The offeror or respondent, in the performance of any contract resulting from this solicitation, () intends, () does not intend (*check applicable block*) to use one or more plants or facilities located at a different address from the address of the offeror or respondent as indicated in this proposal or response to request for information.

(b) If the offeror or respondent checks “intends” in paragraph (a) of this provision, it shall insert in the following spaces the required information:

Place of Performance
(Street Address, City,
County, State, Zip Code)

Name and address of Owner
and Operator of the Plant or
Facility if Other than
Offeror or Respondent

K.7 SMALL BUSINESS PROGRAM REPRESENTATIONS (FAR 52.219-1, JAN 1997)

(a) (1) The standard industrial classification (SIC) code for this acquisition is 8731.

(2) The small business size standard is 500.

(3) The small business size standard for a concern which submits an offer in its own name, other than on a construction or service contract, but which proposes to furnish a product which it did not itself manufacture, is 500 employees.

(b) *Representations.*

(1) The offeror represents and certifies as part of its offer that it
() is, () is not a small business concern.

(2) (Complete only if offeror represented itself as a small business concern in block (b)(1) of this section.) The offeror represents as part of its offer that it () is, () is not a small disadvantaged business concern.

(3) (Complete only if offeror represented itself as a small business concern in block (b)(1) of this section.) The offeror represents as part of its offer that it () is, () is not a women-owned small business concern.

(c) *Definitions.*

Joint venture, for purposes of a small disadvantaged business (SDB) set-aside or price evaluation preference (as prescribed at 13 CFR 124.321), is a concern that is owned and controlled by one or more socially and economically disadvantaged individuals entering into a joint venture agreement with one or more business concerns and is considered to be affiliated for size purposes with such other concern(s). The combined annual receipts or employees of the concerns entering into the joint venture must meet the applicable size standard corresponding to the SIC code designated for the contract. The majority of the venture's earnings must accrue directly to the socially and economically disadvantaged individuals in the SDB concern(s) in the joint venture. The percentage of the ownership involvement in a joint venture by disadvantaged individuals must be at least 51 percent.

Small business concern, as used in this provision, means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria in 13 CFR Part 121 and the size standard in paragraph (a) of this provision.

Small disadvantaged business concern, as used in this provision, means a small business concern that (1) is at least 51 percent unconditionally owned by one or more individuals who are both socially and economically disadvantaged, or a publicly owned business having at least 51 percent of its stock unconditionally owned by one or more socially and economically disadvantaged individuals, and (2) has its management and daily business controlled by one or more such individuals. This term also means a small business concern that is at least 51 percent unconditionally owned by an economically disadvantaged Indian tribe or Native Hawaiian Organization, or a publicly owned business having at least 51 percent of its stock unconditionally owned by one or more of these entities, which has its management and daily business controlled by members of an economically disadvantaged Indian tribe or Native Hawaiian Organization, and which meets the requirements of 13 CFR Part 124.

Women-owned small business concern, as used in this provision, means a small business concern--

- (1) Which is at least 51 percent owned by one or more women or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and
- (2) Whose management and daily business operations are controlled by one or more women.

(d) *Notice.*

(1) If this solicitation is for supplies and has been set aside, in whole or in part, for small business concerns, then the clause in this solicitation providing notice of the set-aside contains restrictions on the source of the end items to be furnished.

(2) Under 15 U.S.C. 645(d), any person who misrepresents a firm's status as a small or small disadvantaged business concern in order to obtain a contract to be awarded under the preference programs established pursuant to sections 8(a), 8(d), 9, or 15 of the Small Business Act or any other provision of Federal law that specifically references section 8(d) for a definition of program eligibility, shall--

- (i) Be punished by imposition of fine, imprisonment, or both;
- (ii) Be subject to administrative remedies, including suspension and debarment; and
- (iii) Be ineligible for participation in programs conducted under the authority of the Act.

K.8 CERTIFICATION OF NONSEGREGATED FACILITIES (FAR 52.222-21, APR 1984)

(a) "Segregated facilities," as used in this provision, means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees, that are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, or national origin because of habit, local custom, or otherwise.

(b) By the submission of this offer, the offeror certifies that it does not and will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not and will not permit its employees to perform their services at any location under its control where segregated facilities are maintained. The offeror agrees that a breach of this certification is a violation of the Equal Opportunity clause in the contract.

(c) The offeror further agrees that (except where it has obtained identical certifications from proposed subcontractors for specific time periods) it will:

- (1) Obtain identical certifications from proposed subcontractors before the award of subcontracts under which the subcontractor will be subject to the Equal Opportunity clause;
- (2) Retain the certifications in the files; and
- (3) Forward the following notice to the proposed subcontractors (except if the proposed subcontractors have submitted identical certifications for specific time periods):

NOTICE TO PROSPECTIVE SUBCONTRACTORS OF REQUIREMENT FOR CERTIFICATIONS OF NONSEGREGATED FACILITIES

A Certification of Nonsegregated Facilities must be submitted before the award of a subcontract under which the subcontractor will be subject to the Equal Opportunity clause. The certification may be submitted either for each subcontract or for all subcontracts during a period (i.e., quarterly, semiannually, or annually).

NOTE: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

K.9 PREVIOUS CONTRACTS AND COMPLIANCE REPORTS (FAR 52.222-22, APR 1984)

The offeror represents that:

(a) It () has, () has not participated in a previous contract or subcontract subject either to the Equal Opportunity clause of this solicitation, the clause originally contained in Section 310 of Executive Order No. 10925, or the clause contained in Section 201 of Executive Order No. 11114;

(b) It () has, () has not, filed all required compliance reports; and

(c) Representations indicating submission of required compliance reports, signed by proposed subcontractors, will be obtained before subcontract awards.

K.10 AFFIRMATIVE ACTION COMPLIANCE (FAR 52.222-25, APR 1984)

The offeror represents that:

(a) It () has developed and has on file, () has not developed and does not have on file, at each establishment, affirmative action programs required by the rules and regulations of the Secretary of Labor (41 CFR 60-1 and 60-2); or

(b) it () has not previously had contracts subject to the written affirmative action programs requirement of the rules and regulations of the Secretary of Labor.

K.11 CLEAN AIR AND WATER CERTIFICATION (FAR 52.223-1, APR 1984)

The Offeror certifies that:

(a) Any facility to be used in the performance of this proposed contract is (), is not () listed on the Environmental Protection Agency (EPA) List of Violating Facilities;

(b) The Offeror will immediately notify the Contracting Officer, before award, of the receipt of any communication from the Administrator, or a designee, of the EPA, indicating that any facility that the Offeror proposes to use for the performance of the contract is under consideration to be listed on the EPA List of Violating Facilities; and

(c) The Offeror will include a certification substantially the same as this certification, including this paragraph (c), in every nonexempt subcontract.

K.12 CERTIFICATION OF TOXIC CHEMICAL RELEASE REPORTING (FAR 52.223-13, OCT 1996)

(a) Submission of this certification is a prerequisite for making or entering into this contract imposed by Executive Order 12969, August 8, 1995.

(b) By signing this offer, the offeror certifies that--

(1) As the owner or operator of facilities that will be used in the performance of this contract that are subject to the filing and reporting requirements described in section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) (42 U.S.C. 11023)

and section 6607 of the Pollution Prevention Act of 1990 (PPA) (42 U.S.C. 13106), the offeror will file and continue to file for such facilities for the life of the contract the Toxic Chemical Release Inventory Form (Form R) as described in sections 313(a) and (g) of EPCRA and section 6607 of PPA; or--

(2) None of its owned or operated facilities to be used in the performance of this contract is subject to the Form R filing and reporting requirements because each such facility is exempt for at least one of the following reasons: (Check each block that is applicable.)

(i) The facility does not manufacture, process, or otherwise use any toxic chemicals listed under section 313(c) of EPCRA, 42 U.S.C. 11023(c);

(ii) The facility does not have 10 or more full-time employees as specified in section 313(b)(1)(A) of EPCRA, 42 U.S.C. 11023(b)(1)(A);

(iii) The facility does not meet the reporting thresholds of toxic chemicals established under section 313(f) of EPCRA, 42 U.S.C. 11023(f) (including the alternate thresholds at 40 CFR 372.27, provided an appropriate certification form has been filed with EPA);

(iv) The facility does not fall within Standard Industrial Classification Code (SIC) designations 20 through 39 as set forth in Section 19.102 of the Federal Acquisition Regulation; or

(v) The facility is not located within any State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the United States Virgin Islands, the Northern Mariana Islands, or any other territory or possession over which the United States has jurisdiction.

K.13 REPRESENTATION OF LIMITED RIGHTS DATA AND RESTRICTED COMPUTER SOFTWARE. (FAR 52.227-15, JUN 1987)

(a) This solicitation sets forth the work to be performed if a contract award results, and the Government's known delivery requirements for data (as defined in FAR 27.401). Any resulting contract may also provide the Government the option to order additional data under the Additional Data Requirements clause at 52.227-16 of the FAR, if included in the contract. Any data delivered under the resulting contract will be subject to the Rights in Data - General clause at 52.227-14 that is to be included in this contract. Under the latter clause, a Contractor may withhold from delivery data that qualify as limited rights data or restricted computer software, and deliver form, fit, and function data in lieu thereof. The latter clause also may be used with its *Alternates II* and/or *III* to obtain delivery of limited rights data or restricted computer software, marked with limited rights or restricted rights notices, as appropriate. In addition, use of *Alternate V* with this latter clause provides the Government the right to inspect such data at the Contractor's facility.

(b) As an aid in determining the Government's need to include any of the aforementioned *Alternates* in the clause at 52.227-14, Rights in Data - General, the offeror's response to this solicitation shall, to the extent feasible, complete the representation in paragraph (b) of this provision to either state that none

of the data qualify as limited rights data or restricted computer software, or identify which of the data qualifies as limited rights data or restricted computer software. Any identification of limited rights data or restricted computer software in the offeror's response is not determinative of the status of such data should a contract be awarded to the offeror.

REPRESENTATION CONCERNING DATA RIGHTS

Offeror has reviewed the requirements for the delivery of data or software and states (offeror check appropriate block) -

() None of the data proposed for fulfilling such requirements qualifies as limited rights data or restricted computer software.

() Data proposed for fulfilling such requirements qualify as limited rights data or restricted computer software and are identified as follows:

Note: "Limited rights data" and "Restricted computer software" are defined in the contract clause entitled "Rights In Data - General."

K.14 COST ACCOUNTING STANDARDS NOTICES AND CERTIFICATION (FAR 52.230-1, APR 1996)

Note: **This notice does not apply to small businesses or foreign governments.** This notice is in three parts, identified by Roman numerals I through III. If the offeror is an educational institution, Part II does not apply unless the contemplated contract will be subject to full or modified CAS coverage pursuant to 48 CFR 9903.201-2(c)(5) or 9903.201-2(c)(6), respectively.

I. Disclosure Statement - Cost Accounting Practices and Certification

(a) Any contract in excess of \$500,000 resulting from this solicitation, except contracts in which the price negotiated is based on (1) established catalog or market prices of commercial items sold in substantial quantities to the general public, or (2) prices set by law or regulation, will be subject to the requirements of The Cost Accounting Standards Board (48 CFR Chapter 99), except for those contracts which are exempt as specified in 48 CFR 9903.201-1.

(b) Any offeror submitting a proposal which, if accepted, will result in a contract subject to the requirements of 48 CFR Chapter 99 must, as a condition of contracting, submit a Disclosure Statement as required by 48 CFR 9903.202. When required, the Disclosure Statement must be submitted as a part

of the offeror's proposal under this solicitation unless the offeror has already submitted a Disclosure Statement disclosing the practices used in connection with the pricing of this proposal. If an applicable Disclosure Statement has already been submitted, the offeror may satisfy the requirement for submission by providing the information requested in paragraph (c) of Part I of this provision.

CAUTION: In the absence of specific regulations or agreement, a practice disclosed in a Disclosure Statement shall not, by virtue of such disclosure, be deemed to be a proper, approved, or agreed-to-practice for pricing proposals or accumulating and reporting contract performance cost data.

(c) Check the appropriate box below:

() (1) *Certificate of Concurrent Submission of Disclosure Statement.*

The offeror hereby certifies that, as a part of the offer, copies of the Disclosure Statement have been submitted as follows: (i) original and one copy to the cognizant Administrative Contracting Officer (ACO), or cognizant Federal agency official authorized to act in that capacity (Federal official), as applicable, and (ii) one copy to the cognizant Federal auditor.

(Disclosure must be on Form No. CASB DS-1 or CASB-DS-2, as applicable. Forms may be obtained from the cognizant ACO or Federal official and/or from the loose-leaf version of the Federal Acquisition Regulation.)

Date of Disclosure Statement:

Name and Address of Cognizant ACO or Federal Official Where Filed:

The offeror further certifies that the practices used in estimating costs in pricing this proposal are consistent with the cost accounting practices disclosed in the Disclosure Statement.

() (2) *Certificate of Previously Submitted Disclosure Statement.*

The offeror hereby certifies that the required Disclosure Statement was filed as follows:

Date of Disclosure Statement:

Name and Address of Cognizant ACO or Federal Official Where Filed:

The offeror further certifies that the practices used in estimating costs in pricing this proposal are consistent with the cost accounting practices disclosed in the applicable Disclosure Statement.

() (3) Certificate of Monetary Exemption.

The offeror hereby certifies that the offeror, together with all divisions, subsidiaries, and affiliates under common control, did not receive net awards of negotiated prime contracts and subcontracts subject to CAS totaling more than \$25 million (of which at least one award exceeded \$1 million) in the cost accounting period immediately preceding the period in which this proposal was submitted. The offeror further certifies that if such status changes before an award resulting from this proposal, the offeror will advise the Contracting Officer immediately.

() (4) Certificate of Interim Exemption.

The offeror hereby certifies that (i) the offeror first exceeded the monetary exemption for disclosure, as defined in (3) of this subsection, in the cost accounting period immediately preceding the period in which this offer was submitted and (ii) in accordance with 48 CFR 9903.202-1, the offeror is not yet required to submit a Disclosure Statement. The offeror further certifies that if an award resulting from this proposal has not been made within 90 days after the end of that period, the offeror will immediately submit a revised certificate to the Contracting Officer, in the form specified under subparagraph (c)(1) or (c)(2) of Part I of this provision, as appropriate, to verify submission of a completed Disclosure Statement.

CAUTION: Offerors currently required to disclose because they were awarded a CAS-covered prime contract or subcontract of \$25 million or more in the current cost accounting period may not claim this exemption (4). Further, the exemption applies only in connection with proposals submitted before expiration of the 90-day period following the cost accounting period in which the monetary exemption was exceeded.

II. Cost Accounting Standards - Eligibility for Modified Contract Coverage

If the offeror is eligible to use the modified provisions of 48 CFR 9903.201-2(b) and elects to do so, the offeror shall indicate by checking the box below. Checking the box below shall mean that the resultant contract is subject to the Disclosure and Consistency of Cost Accounting Practices clause in lieu of the Cost Accounting Standards clause.

() The offeror hereby claims an exemption from the Cost Accounting Standards clause under the provisions of 48 CFR 9903.201-2(b) and certifies that the offeror is eligible for use of the Disclosure and Consistency of Cost Accounting Practices clause because during the cost accounting period immediately preceding the period in which this proposal was submitted, the offeror received less than

\$25 million in awards of CAS-covered prime contracts and subcontracts, or the offeror did not receive a single CAS-covered award exceeding \$1 million. The offeror further certifies that if such status changes before an award resulting from this proposal, the offeror will advise the Contracting Officer immediately.

CAUTION: An offeror may not claim the above eligibility for modified contract coverage if this proposal is expected to result in the award of a CAS-covered contract of \$25 million or more or if, during its current cost accounting period, the offeror has been awarded a single CAS-covered prime contract or subcontract of \$25 million or more.

III. Additional Cost Accounting Standards Applicable to Existing Contracts.

The offeror shall indicate below whether award of the contemplated contract would, in accordance with subparagraph (a)(3) of the Cost Accounting Standards clause, require a change in established cost accounting practices affecting existing contracts and subcontracts.

() Yes () No.

K.15 HISTORICALLY BLACK COLLEGE OR UNIVERSITY AND MINORITY INSTITUTION REPRESENTATION (FAR 52.226-2, MAY 1997)

(a) Definitions. As used in this provision--Historically Black College or University means an institution determined by the Secretary of Education to meet the requirements of 34 CFR 608.2. For the Department of Defense, the National Aeronautics and Space Administration, and the Coast Guard, the term also includes any nonprofit research institution that was an integral part of such a college or university before November 14, 1986.

Minority Institution means an institution of higher education meeting the requirements of Section 1046(3) of the Higher Education Act of 1965 (20 U.S.C. 1135d-5(3)) which, for the purpose of this provision, includes a Hispanic-serving institution of higher education as defined in Section 316(b)(1) of the Act (20 U.S.C. 1059c(b)(1)).

(b) Representation. The offeror represents that it--

() is () is not a Historically Black College or University;

() is () is not a Minority Institution.

K.16 ENERGY POLICY ACT TARGET GROUP CERTIFICATION (DEAR 952.226-73, SEP 1997)

(a) *Certification.* The offeror certifies that it is:

(1) () An institution of higher education that meets the requirements of 34 CFR 600.4(a), and has a student enrollment that consists of at least 20 percent:

(i) Hispanic Americans, i.e., students whose origins are in Mexico, Puerto Rico, Cuba, or Central or South America, or any combination thereof, or

(ii) Native Americans, i.e., American Indians, Eskimos, Aleuts, and Native Hawaiians, or any combination thereof;

(2) () An institution of higher learning determined to be a Historically Black College and University by the Secretary of Education pursuant to 34 CFR 608.2; or

(3) () A small business concern, as defined under section 3 of the Small Business Act (15 U.S.C. 632), that is owned and controlled by individuals who are both socially and economically disadvantaged within the meaning of section 8(d) of the Small Business Act (15 U.S.C. 637(d)) or by a woman or women.

(b) By submission of an offer, the offeror agrees to provide to the Contracting Officer, upon request, evidence satisfactory to the contracting officer that the offeror is an entity from the Energy Policy Act target group identified.

K.17 DISPLACED EMPLOYEE HIRING PREFERENCE (JUN 1997) (DEAR 952.226-74)

(Applicable to contracts expected to exceed \$500,000, except for contracts for commercial items)

(a) Definition

“Eligible employee” means a current or former employee of a contractor or subcontractor employed at a DOE Defense Nuclear Facility (1) whose position of employment has been, or will be, involuntarily terminated (except if terminated for cause), (2) who has also met the eligibility criteria contained in the DOE guidance for contractor work force restructuring, as may be amended or supplemented from time to time, and (3) who is qualified for a particular job vacancy with the Department or one of its contractors with respect to work under its contract with the Department at the time the particular position is available.

(b) Consistent with DOE guidance for contractor work force restructuring, as may be amended or supplemented from time to time, the contractor agrees that it will provide a preference in hiring to an eligible employee to the extent practicable for work performed under this contract.

(3) The requirements of the clause shall be included in subcontracts at any tier (except for subcontracts for commercial items pursuant to 41 U.S.C. 403) expected to exceed \$500,000.

K.18 52.227-6 ROYALTY INFORMATION. (APR 1984)

(a) Cost or charges for royalties. When the response to this solicitation contains costs or charges for royalties totaling more than \$250, the following information shall be included in the response relating to each separate item of royalty or license fee:

(1) Name and address of licensor.

(2) Date of license agreement.

(3) Patent numbers, patent application serial numbers, or other basis on which the royalty is payable.

(4) Brief description, including any part or model numbers of each contract item or component on which the royalty is payable.

(5) Percentage or dollar rate of royalty per unit.

(6) Unit price of contract item.

(7) Number of units.

(8) Total dollar amount of royalties.

(b) Copies of current licenses. In addition, if specifically requested by the Contracting Officer before execution of the contract, the offeror shall furnish a copy of the current license agreement and an identification of applicable claims of specific patents.

K.19 SIGNATURE/CERTIFICATION

By signing below, the bidder/offeror certifies, under penalty of law, that the representations and certifications are accurate, current, and complete. The bidder/offeror further certifies that it will notify the Contracting Officer of any changes to these representations and certifications. The representations and certifications made by the bidder/offeror, as contained herein, concern matters

within the jurisdiction of an agency of the United States and the making of a false, fictitious, or fraudulent representation or certification may render the maker subject to prosecution under Title 18, United States Code, Section 1001.

Date of Execution

Signature of the Officer or Employee
Responsible for the Bid/Offer

Typed Name and Title of the Officer or Employee
Responsible for the Bid/Offer

Name of Organization

Street

City

State/zip

Solicitation Number

PART V - SECTION L
INSTRUCTIONS, CONDITIONS, AND NOTICES TO OFFERORS

L.1 GENERAL

The model contract (Sections A through J) contains terms and conditions pertinent to this solicitation and the anticipated award document. Offerors should carefully review the information contained therein, and, as appropriate, state any proposed exceptions/deviations per the proposal preparation instructions given below.

- (a) **Eligibility.** All responsible individuals, corporations, non-profit organizations, educational institutions, and state or local governments may submit proposals for consideration.

Proposals which include performance at any level by DOE Management & Operating (M&O) Contractors and other federal entities are inappropriate for this competition and shall be determined ineligible for award. However, Federal entities and/or agents who can use the Economy Act or DOE Field Task Proposal Agreements System may choose to submit proposals outside the PRDA process for consideration by DOE officials at any given time.

- (b) **Cost-Sharing.** The DOE anticipates making multiple awards via cost-sharing contract(s). The offeror must cost share at least 20 percent of the total allowable project cost. For example, if the total cost is \$100,000, the participant must share at least \$20,000 and DOE's share will be no more than \$80,000. Fee will not be paid under this contract. Forbearance of fee/profit will not be considered cost sharing under this PRDA.

- (c) **Level of Effort.** It is expected that the effort needed for each project will range from \$100,000 - \$500,000 per year for a period of one (1) to five (5) years. A total of sixteen (16) to twenty-nine (29) contracts are expected under the solicitation (refer to Part III, Section J, Attachment A for specific information on each Area of Interest).

L.2 SMALL BUSINESS SIZE STANDARDS AND SET-ASIDE INFORMATION (UNRESTRICTED)

This acquisition is unrestricted and contains no set-aside provisions. However for purposes of this solicitation, a small business is defined as no more than 500 employees and the Standard Industrial Classification is 8734.

L.3 INTENTION TO PROPOSE

Please review this solicitation and complete the information in Appendix I, Intent to Propose, and mail, fax or e-mail your response by the earliest practical date to the address shown on the form.

L.4 CLASSIFIED MATERIAL

Performance under the proposed contract is not anticipated to involve access to classified material.

L.5 DISPOSAL OF PROPOSALS

Proposals will not be returned (except for timely withdrawals), but will be retained by DOE for official record purposes or destroyed.

L.6 INSTRUCTIONS TO OFFERORS - COMPETITIVE ACQUISITION (FAR 52.215-1, OCT 1997)

(a) Definitions. As used in this provision -

Discussions are negotiations that occur after establishment of the competitive range that may, at the Contracting Officer's discretion, result in the offeror being allowed to revise its proposal.

In writing or written means any worded or numbered expression which can be read, reproduced, and later communicated, and includes electronically transmitted and stored information.

Proposal modification is a change made to a proposal before the solicitation's closing date and time, or made in response to an amendment, or made to correct a mistake at any time before award.

Proposal revision is a change to a proposal made after the solicitation closing date, at the request of or as allowed by a Contracting Officer as the result of negotiations.

Time, if stated as a number of days, is calculated using calendar days, unless otherwise specified, and will include Saturdays, Sundays, and legal holidays. However, if the last day falls on a Saturday, Sunday, or legal holiday, then the period shall include the next working day.

(b) Amendments to solicitations. If this solicitation is amended, all terms and conditions that are not amended remain unchanged. Offerors shall acknowledge receipt of any amendment to this solicitation by the date and time specified in the amendment(s).

(c) Submission, modification, revision, and withdrawal of proposals.

(1) Unless other methods (e.g., electronic commerce or facsimile) are permitted in the solicitation, proposals and modifications to proposals shall be submitted in paper media in sealed envelopes or packages (i) addressed to the office specified in the solicitation, and (ii) showing the time and date specified for receipt, the solicitation number, and the name and address of the offeror. Offerors using commercial carriers should ensure that the proposal is marked on the outermost wrapper with the information in paragraphs (c)(1)(i) and (c)(1)(ii) of this provision.

(2) The first page of the proposal must show -

- (i) The solicitation number;
- (ii) The name, address, and telephone and facsimile numbers of the offeror (and electronic address if available);
- (iii) A statement specifying the extent of agreement with all terms, conditions, and provisions included in the solicitation and agreement to furnish any or all items upon which prices are offered at the price set opposite each item;
- (iv) Names, titles, and telephone and facsimile numbers (and electronic addresses if available) of persons authorized to negotiate on the offeror's behalf with the Government in connection with this solicitation; and
- (v) Name, title, and signature of person authorized to sign the proposal. Proposals signed by an agent shall be accompanied by evidence of that agent's authority, unless that evidence has been previously furnished to the issuing office.

(3) Late proposals and revisions.

- (i) Any proposal received at the office designated in the solicitation after the exact time specified for receipt of offers will not be considered unless it is received before award is made and
 - (A) It was sent by registered or certified mail not later than the fifth calendar day before the date specified for receipt of offers (e.g., an offer submitted in response to a solicitation requiring receipt of offers by the 20th of the month must have been mailed by the 15th);
 - (B) It was sent by mail (or telegram or facsimile, if authorized) or hand-carried (including delivery by a commercial carrier) if it is determined by the Government that the late receipt was due primarily to Government mishandling after receipt at the Government installation;
 - (C) It was sent by U.S. Postal Service Express Mail Next Day Service-Post Office to Addressee, not later than 5:00 p.m. at the place of mailing two working days prior to the date specified for receipt of proposals. The term "working days" excludes weekends and U.S. Federal holidays;
 - (D) It was transmitted through an electronic commerce method authorized by the solicitation and was received at the initial point of entry to the Government infrastructure not later than 5:00 p.m. one working day prior to the date specified for receipt of proposals; or
 - (E) There is acceptable evidence to establish that it was received at the activity designated for receipt of offers and was under the Government's control prior to the

time set for receipt of offers, and the Contracting Officer determines that accepting the late offer would not unduly delay the procurement; or

(F) It is the only proposal received.

(ii) Any modification or revision of a proposal or response to request for information, including any final proposal revision, is subject to the same conditions as in subparagraphs (c)(3)(i)(A) through (c)(3)(i)(E) of this provision.

(iii) The only acceptable evidence to establish the date of mailing of a late proposal or modification or revision sent either by registered or certified mail is the U.S. or Canadian Postal Service postmark both on the envelope or wrapper and on the original receipt from the U.S. or Canadian Postal Service. Both postmarks must show a legible date of the proposal, response to a request for information, or modification or revision shall be processed as if mailed late. "Postmark" means a printed, stamped, or otherwise placed impression (exclusive of a postage meter machine impression) that is readily identifiable without further action as having been supplied and affixed by employees of the U.S. or Canadian Postal Service on the date of mailing. Therefore, offerors or respondents should request the postal clerk to place a legible hand cancellation bull's eye postmark on both the receipt and the envelope or wrapper.

(iv) Acceptable evidence to establish the time of receipt at the Government installation includes the time/date stamp of that installation on the proposal wrapper, other documentary evidence of receipt maintained by the installation, or oral testimony or statements of Government personnel.

(v) The only acceptable evidence to establish the date of mailing of a late offer, modification or revision, or withdrawal sent by Express Mail Next Day Service-Post Office to Addressee is the date entered by the post office receiving clerk on the "Express Mail Next Day Service-Post Office to Addressee" label and the postmark on both the envelope or wrapper and on the original receipt from the U.S. Postal Service. "Postmark" has the same meaning as defined in paragraph (c)(3)(iii) of this provision, excluding postmarks of the Canadian Postal Service. Therefore, offerors or respondents should request the postal clerk to place a legible hand cancellation bull's eye postmark on both the receipt and the envelope or wrapper.

(vi) Notwithstanding paragraph (c)(3)(i) of this provision, a late modification or revision of an otherwise successful proposal that makes its terms more favorable to the Government will be considered at any time it is received and may be accepted.

(vii) Proposals may be withdrawn by written notice or telegram (including mailgram) received at any time before award. If the solicitation authorizes facsimile proposals, proposals may be withdrawn via facsimile received at any time before award, subject to the conditions specified in the provision entitled "Facsimile Proposals." Proposals may be withdrawn in person by an offeror or an authorized

representative, if the representative's identity is made known and the representative signs a receipt for the proposal before award.

(viii) If an emergency or unanticipated event interrupts normal Government processes so that proposals cannot be received at the office designated for receipt of proposals by the exact time specified in the solicitation, and urgent Government requirements preclude amendment of the solicitation or other notice of an extension of the closing date, the time specified for receipt of proposals will be deemed to be extended to the same time of day specified in the solicitation on the first work day on which normal Government processes resume. If no time is specified in the solicitation, the time for receipt is 4:30 p.m., local time, for the designated Government office.

(4) Unless otherwise specified in the solicitation, the offeror may propose to provide any item or combination of items.

(5) Proposals submitted in response to this solicitation shall be in English and in U.S. dollars, unless otherwise permitted by the solicitation.

(6) Offerors may submit modifications to their proposals at any time before the solicitation closing date and time, and may submit modifications in response to an amendment, or to correct a mistake at any time before award.

(7) Offerors may submit revised proposals only if requested or allowed by the Contracting Officer.

(8) Proposals may be withdrawn at any time before award. Withdrawals are effective upon receipt of notice by the Contracting Officer.

(d) Offer expiration date. Proposals in response to this solicitation will be valid for the number of days specified on the solicitation cover sheet (unless a different period is proposed by the offeror).

(e) Restriction on disclosure and use of data. Offerors that include in their proposals data that they do not want disclosed to the public for any purpose, or used by the Government except for evaluation purposes, shall -

(1) Mark the title page with the following legend: This proposal includes data that shall not be disclosed outside the Government and shall not be duplicated, used, or disclosed - in whole or in part - for any purpose other than to evaluate this proposal. If, however, a contract is awarded to this offeror as a result of - or in connection with - the submission of this data, the Government shall have the right to duplicate, use, or disclose the data to the extent provided in the resulting contract. This restriction does not limit the Government's right to use information contained in this data if it is obtained from another source without restriction. The data subject to this restriction are contained in sheets [insert numbers or other identification of sheets]; and

(2) Mark each sheet of data it wishes to restrict with the following legend: Use or disclosure of data contained on this sheet is subject to the restriction on the title page of this proposal.

(f) Contract award.

(1) The Government intends to award a contract or contracts resulting from this solicitation to the responsible offeror(s) whose proposal(s) represents the best value after evaluation in accordance with the factors and subfactors in the solicitation.

(2) The Government may reject any or all proposals if such action is in the Government's interest.

(3) The Government may waive informalities and minor irregularities in proposals received.

(4) The Government intends to evaluate proposals and award a contract without discussions with offerors (except clarifications as described in FAR 15.306(a)). Therefore, the offeror's initial proposal should contain the offeror's best terms from a cost or price and technical standpoint. The Government reserves the right to conduct discussions if the Contracting Officer later determines them to be necessary. If the Contracting Officer determines that the number of proposals that would otherwise be in the competitive range exceeds the number at which an efficient competition can be conducted, the Contracting Officer may limit the number of proposals in the competitive range to the greatest number that will permit an efficient competition among the most highly rated proposals.

(5) The Government reserves the right to make an award on any item for a quantity less than the quantity offered, at the unit cost or prices offered, unless the offeror specifies otherwise in the proposal.

(6) The Government reserves the right to make multiple awards if, after considering the additional administrative costs, it is in the Government's best interest to do so.

(7) Exchanges with offerors after receipt of a proposal do not constitute a rejection or counteroffer by the Government.

(8) The Government may determine that a proposal is unacceptable if the prices proposed are materially unbalanced between line items or subline items. Unbalanced pricing exists when, despite an acceptable total evaluated price, the price of one or more contract line items is significantly overstated or understated as indicated by the application of cost or price analysis techniques. A proposal may be rejected if the Contracting Officer determines that the lack of balance poses an unacceptable risk to the Government.

(9) If a cost realism analysis is performed, cost realism may be considered by the source selection authority in evaluating performance or schedule risk.

(10) A written award or acceptance of proposal mailed or otherwise furnished to the successful offeror within the time specified in the proposal shall result in a binding contract without further action by either party.

(11) The Government may disclose the following information in postaward debriefings to other offerors:

(i) The overall evaluated cost or price and technical rating of the successful offeror;

(ii) The overall ranking of all offerors, when any ranking was developed by the agency during source selection;

(iii) A summary of the rationale for award; and

(iv) For acquisitions of commercial items, the make and model of the item to be delivered by the successful offeror.

L.7 PROPOSAL PREPARATION INSTRUCTIONS

L.7(a) GENERAL

L.7(a)(1) OVERALL ARRANGEMENT OF PROPOSAL.

To facilitate orderly and expedient review of proposals submitted in response to this PRDA, the proposals are to be prepared in the format according to instructions enumerated herein. Each proposal is to consist of three (3) separately bound volumes entitled respectively: Volume I - Qualification, Offer and Other Documents; Volume II - Technical Proposal; and Volume III - Cost Proposal. A Proposal Cover Sheet (Appendix II) must be attached to each volume. The recommended page size is 8-1/2 inches by 11 inches; typing should be double spaced. Printing on both sides of a sheet is encouraged.

The overall proposal shall consist of three (3) physically separated volumes, individually entitled as stated below. The required number of each proposal volume is also shown in the matrix below.

| Proposal Volume -- Title | Total Copies Required |
|---|------------------------|
| Volume I -- Qualification Offer and Other Documents | Signed Original + 4 |
| Volume II -- Technical Proposal | Signed Original +4 |
| Volume III -- Cost Proposal | Signed Original + 4 |

Packaging: The proposal shall be submitted in two groups. Group No. 1 of each proposal shall contain the signed original of all documents requiring signature by the offeror. Group 2 of each proposal shall consist of all required copies; use of reproductions of signed originals is authorized in all copies of the proposal. Each group is to be packaged individually. This does not preclude packaging more than one, or all groups in a single overall package. Mark the group number on the outside of the individual packages.

L.7(a)(2) FALSE STATEMENTS

Proposals must set forth full, accurate, and complete information as required by this solicitation (including attachments). The penalty for making false statements in proposals is prescribed in 18 U.S.C. 1001.

L.7(a)(3) RIGHTS IN TECHNICAL DATA SOLICITATION INSTRUCTION (DEAR 952.227-83, APR 1984)

The section of this solicitation which describes the work to be performed also sets forth DOE's known requirements for technical data. The Additional Technical Data Requirements clause (FAR 52.227-16), if included in this solicitation, provides the Government with the option to order additional technical data, the requirements for which are not known at the time of contracting. There is, however, a built-in limitation on the kind of technical data which may be required. This limitation provides that the contractor may withhold delivery of proprietary data. Accordingly, it is necessary that your proposal state that the work to be performed and the known requirements for technical data as set forth in the solicitation have been reviewed, and either state that, to the best of your knowledge, no data will be withheld, or submit a list identifying the proprietary data which, to the best of your knowledge, will likely be used in the contract performance and will be withheld.

L.7(a)(4) EXPENSES RELATED TO PROPOSAL OR BID SUBMISSIONS

This solicitation does not commit the Government to pay any costs incurred in the submission of any proposal or bid, or in making necessary studies or designs for the preparation thereof or to acquire or contract for any services.

L.7(a)(5) OFFER ACCEPTANCE PERIOD

The minimum offer acceptance period is 180 days after the required date for receipt of proposals.

L.7(b) PREPARATION INSTRUCTIONS: VOLUME I - QUALIFICATION, OFFER AND OTHER DOCUMENTS - shall contain the information specified below in accordance with the following format:

- (i) Cover Sheet: A completed and signed cover sheet in the format shown in Appendix II shall be used.

(ii) Table of Contents: Proposals shall include table of contents to facilitate locating the elements of the proposal. All exhibits to Volume I should also be identified.

(iii) Acknowledgment of Amendments to Solicitation, if any.

(iv) Supporting Data:

A discussion of the proposed involvement of qualified and capable small and small socially and economically disadvantaged business concerns. In addition, address the extent to which consideration has been given for subcontracting opportunities to entities from among the Energy Policy Act target groups, i.e., (1) small business concerns controlled by socially and economically disadvantaged individuals or by women; or (2) Historically Black colleges and universities; or (3) colleges and universities having a student body in which more than twenty (20) percent of the students are Hispanic Americans or Native Americans (as implemented by DEAR 926.7001). This section shall also contain the offerors commitment to, on request, submit and negotiate in good faith a Small Business and Small Disadvantaged Business Subcontracting Plan in accordance with contract clause I.32 (FAR 52.219-9), and clause I.46 (DEAR 952.226-70) of this solicitation.

(v) Additional information to be provided:

A. Contractor Identification Number--Data Universal Numbering System (DUNS) Number (FAR 52.204-6, DEC 1996)

Contractor Identification Number means "Data Universal Numbering System (DUNS) number," which is a nine-digit number assigned by Dun and Bradstreet Information Services. Contractor identification is essential for complying with statutory contract reporting requirements. Therefore, the offeror is requested to provide "DUNS" number which identifies the offeror's name and address exactly as stated in the offer.

If the offeror does not have a DUNS number, it should contact Dun and Bradstreet directly to obtain one. A DUNS number will be provided immediately by telephone at no charge to the offeror. For information on obtaining a DUNS number, the offeror should call Dun and Bradstreet at 1-800-333-0505.

Offerors located outside the United States may obtain the location and phone number of the local Dun and Bradstreet Information Services office from the Internet at: <http://www.dbisna.com/dbis/customer/custlist.htm>. If an offeror is unable to locate a local service center, it may send an e-mail to Dun and Bradstreet at globalinfo@dbisma.com.

B. Point(s) of Contact: The name(s), telephone number(s), facsimile (fax) numbers, and e-mail address(es), as appropriate, of the proposer's technical personnel whom DOE may contact during evaluation or negotiation shall be provided under this section.

C. Representations, Certifications and Other Statements: Part IV, Section K, Representations, Certifications and Other Statements of Bidders/Offerors must be executed by an authorized official of the submitting organization. Executed Representations/Certifications shall also be provided for each proposed team member/subcontractor.

D. Exceptions to Contract Terms and Conditions: The offeror should review the model contract (Sections A through J of this solicitation) provided herein and delineate any exceptions thereto; if there are no exceptions, it should be so stated.

E. Cost Sharing Certification: The certifications, Appendix IIA, cost sharing by the Proposer must be included in this volume.

F. Environmental Questionnaire. To enable DOE to evaluate the potential environmental impacts of the proposed project, proposers and subcontractors are required to complete, sign and submit the Environmental Questionnaire contained in Appendix V.

G. Government Furnished Property:

(1) Unless otherwise stated, the offeror is expected to furnish all property (including, but not limited to facilities, equipments, special tooling, and material) necessary for the performance of the work defined in the solicitation. Government property as used herein means all Government-furnished property, together with all property acquired by the Contractor, title which vests in the Government.

(2) Indicate in Volume I whether or not the proposal is based on the use of Government property. If the offeror proposes to use Government property to perform the work (whether or not such property is presently in the possession of the offeror), provide the particulars in a separate attachment to the Cost Proposal volume.

The following information should also be included in Volume I - A statement signed by an executive corporate official (or the equivalent in a noncorporate entity) which:

- (a) Expresses the offeror's unwillingness or financial inability to acquire the necessary property with the offeror's resources; or

- (b) Explains that time will not allow the offeror to make the necessary arrangements to obtain timely delivery of such property to meet the Government's requirements even though the offeror is willing and financially able to acquire the property. Such an explanation is to include cost benefit studies that treat lease versus buy versus use of the Government property. In this case existing Government property, if available, may be provided until the property acquired by the offeror is delivered, installed, etc.

(3) In the event that the offeror proposes to use Government-furnished property to perform the work, the Government shall include in its evaluation of the proposal the cost of providing Government-furnished property including acquisition, transportation, installation, removal and disposition (Reference Section L.7(d)).

(4) If the offeror intends to fabricate or purchase any equipment for the performance of the work herein, the offeror shall identify these costs and equipment in the Cost Proposal volume. In addition, a separate attachment to the Cost Proposal volume shall list this equipment by the following categories:

(a) Non-Expendable Property - Item of Personal Property of any kind that is tangible and has a useful life of more than 1 year.

(b) Materials/Supplies - All property other than non-expendable property which may be consumed or expended in normal use.

(5) Notwithstanding the above, the Government reserves the right under any resulting contract to furnish items of equipment, materials, supplies or facilities.

If there is no Government-furnished property required, it should be so stated.

L.7(b)(1) Format and Content

Volume I - Qualification, Offer and Other Documents addresses the Offeror's willingness to provide the required Cost Sharing, provides supporting business management aspects of the procurement and provides a completed environmental questionnaire which enables DOE to evaluate the potential environmental impact associated with the proposed project. Failure to submit a properly executed Cost Sharing Certification (SEE Appendix IIA) with agreement to share at least the required minimum will be grounds for rejection of the entire proposal.

L.7(c) PREPARATION INSTRUCTIONS:

VOLUME II - TECHNICAL PROPOSAL (PAGE LIMIT OF 50 PAGES)

Volume II - Technical Proposal, will be used to assess both the scientific merit of the proposed work and its relevance to both DOE's current programmatic objectives and the objectives of this Program Research and Development Announcement (PRDA) [see Part I, Section J, Attachment A, Program Area of Interest]. The technical proposal must be self-contained and written in a clear and concise manner. The proposal shall be definitive with respect to the research which the offeror actually proposes to conduct. If the proposal is selected for comprehensive evaluation, the criteria specified in Section M shall be applied.

THE PROPOSAL SHALL BE DEFINITIVE WITH RESPECT TO A SPECIFIC TECHNICAL TOPIC WITHIN AN AREA OF INTEREST. For example, you can not submit a proposal under the Geoscience Area of Interest, but rather must submit the proposal to one of the four (4) Technical Topics under the Geoscience area (e.g., Cat-Scan/NMRI Imaging; Wettability & Imbibition; In-Situ Relative Permeability/Capillary Pressure; and Upscaling Techniques). It is permissible to submit multiple proposals; however, each proposal must be separate and a stand alone document containing all components required by this solicitation. No cross-referencing between proposals will be accepted.

The maximum number of pages for the Technical Proposal shall be limited to **50** - 8 ½ x 11 single-sided sheets or **25** double-sided sheets, typed double-spaced, with a font-size of no less than 10 pts. The page count shall exclude the front and back cover, Cover Sheet, Public Abstract, Table of Contents, Resumes, Appendixes and Attachments. No information may be incorporated by reference as a means of circumventing the page limitation. Pages exceeding 50 will not be reviewed and evaluated.

Criterion

Criterion I: Technical Approach

I.A.: Understanding of Technical Issues

I.B.: Quality and Completeness of the Statement of Work

Criterion II: Key Personnel, Facilities, and Management Capabilities

II.A.: Credentials, Experience, and Availability of Key Personnel

II.B.: Existing Facilities and Equipment

II.C.: Management Capabilities

To ensure that the Technical Proposal is evaluated strictly on its own merit, no cost information is to be included. Where estimated labor-hours will provide clarity, they shall be quoted in labor-hour figures only, with no indication as to the cost of these labor-hours.

Format and Content - The Technical Proposal is to be comprised of the following elements in the order designated below:

(i) Cover Sheet

A completed and signed cover sheet in the format attached (Appendix II) shall be used. The title of the proposed effort should be concise and descriptive of the work to be performed.

It is important that the offeror identify the Technical Topic within the Area of Interest that the proposal responds to. For example: Area of Interest - Geoscience; Technical Topic - Wettability & Imbibition.

(ii) Public Abstract

A concise public abstract (including title) of not more than one (1) typewritten page clearly stating the objectives of the proposed research/engineering and the project plan shall be included. The abstract shall demonstrate that the proposed work meets the proposed Departmental and PRDA objectives. This abstract may be released to the public by DOE in whole or part at any time. It is therefore required that no proprietary data or confidential business information be included. (see Appendix III)

(iii) Table of Contents

The proposal shall include a table of contents to facilitate locating the elements of the proposal.

(iv) Technical Discussion

This section shall contain the major portion of the Technical Proposal. It shall be presented in as much detail as practical and include, as a minimum, for each of the following elements:

- A Specific statement of problems, objectives and major difficulties anticipated, if any.
- An in-depth description of the principles and techniques which will be applied in the solution of the problems anticipated.

(v) Technical Approach

Criterion I - Technical Approach

A thorough determination shall be made as to the extent and adequacy of the offeror's understanding of the issues and research objectives described in the statement of work in the specific Technical Topic. In addition, the completeness, relevancy, program objectives, and rationale of the effort proposed will be evaluated.

Criterion I.A Understanding of the Technical Issues - Preparation Instructions:

The offeror must demonstrate the soundness and applicability of their proposed technical approach, including knowledge of state-of-the-art technology, previous related studies, and the issues and problems associated with a specific Technical Topic.

The offeror's proposed technical approach should show creativity and innovation and not be a duplication of past or current efforts, and should make maximum use of existing data, information and resources.

The offeror's understanding of the technical issues, problems, and objectives should be demonstrated by giving a brief review of important and relevant information in the chosen Technical Topic. For Technical Topics under the Environmental Area of Interest only, regulatory issues shall be addressed. This discussion is expected, at a minimum to:

- (1) effectively relate the proposed technical approach to the PRDA objectives, demonstrating why successful completion of the project would achieve the goals set for the Technical Topic under consideration.
- (2) clearly present the technical basis for the proposed SOW by including discussions on relevant technical and regulatory issues, existing technical and regulatory barriers, and pertinent research past and current (Regulatory issues need only be discussed for proposals submitted under the Environmental Area of Interest.
- (3) distinctly distinguish the proposed technical approach from past and current practice and investigations, and demonstrate the uniqueness and how it represents an improvement in the state-of-the-art, or in dealing with existing technical and regulatory (i.e., for Technical Topics under the Environmental Area of Interest only) barriers.

- (4) plainly present a realistic understanding of the potential economic, practical, and application advantages of the proposed research.

Criterion I.B Quality and Completeness of the Statement of Work - Preparation Instructions:

The offeror must provide a detailed Statement of Work (SOW) organized by tasks and subtasks with associated objectives, milestones and deliverables that allows an evaluator to determine the quality, quantity, and completeness of the research being proposed.

The offeror must demonstrate that productive activity on the SOW can begin upon contract award without the need for exhaustive literature searches, numerous technical visits, consultations, extensive laboratory set-up, or personnel training.

Details concerning how the offeror proposes to evaluate the effectiveness of the work, the variables and parameters to be studied, and the proposed experimental or theoretical approaches, must be described.

This section should include:

- (1) a statement of the scope of work, explaining how the SOW has been organized in a logical sequence of tasks.
- (2) a description of each of the segments of work to be performed, sufficiently detailed to allow for evaluation of thoroughness, adequacy, and project completeness.
- (3) a schedule of the estimated time for each task and subtask. The offeror must also provide a detailed project and milestone schedule, a discussion of how the offeror plans to meet scheduled requirements, or work breakdown structure (WBS), a labor distribution plan, and a narrative description of the work to be performed under each WBS element.
- (4) all personnel tied to tasks and subtasks by person-hours (weeks or months) through use of a Gantt chart or equivalent. When appropriate, management decision points must be placed at appropriate points in the SOW.

Criterion II. - Key Personnel, Facilities, and Management

Capabilities

Key personnel from within the proposing organization as well as other research participants involved, including team members and subcontractors will be evaluated with regard to their technical and project management qualifications. The proposed project team will be evaluated to determine the experience, capabilities, resources, and facilities that can be

drawn upon to accomplish the goals of this solicitation in an efficient and productive manner.

Criterion II.A. - Credentials, Experience, and Availability of Key Personnel

- The adequacy of the credentials, capabilities, and experience of key personnel in relation to the proposed project.
- Roles and responsibilities of key personnel, including availability in terms of staff hours assigned during the entire period of project performance.

The offeror must describe the credentials, capabilities, and experience of key personnel in relation to the proposed project, by including resumes and information consistent with and appropriate to the WBS requirements and the proposed level of maturity. If key personnel identified are not currently employed by the offeror, the offeror must submit, with the proposal, letters of intent signed by the key individual(s) stating that the key individual(s) will be employed under any resulting contract.

Information provided in the proposal should demonstrate that the key personnel are currently or have recently been active in the required areas of expertise for the specific Technical Topic proposed. The key personnel should present a list of recent, relevant publications in peer-reviewed scientific journals, patents related to the proposed SOW, or recent accomplishments and presentations that demonstrate their ability to perform productive research in the proposed area of research.

All the key personnel's availability in terms of staff hours assigned to the project, during the period of performance shall be provided.

Criterion II.B. - Existing Facilities and Equipment

- Adequacy and availability of existing facilities and equipment pertinent to the proposed project.

The offeror must provide a detailed description of pertinent existing facilities, equipment, support personnel and other resources, and their relationship to the proposed SOW. This should include the resources available to the various researchers that are based in industry, state organizations, academic, or other research organizations, subcontractors, consultants, vendors, and commercial laboratories that will be involved in the overall research effort being proposed.

Criterion II.C. - Management Capabilities

- Relevance of prior or current corporate/institutional experience in similar interdisciplinary efforts.

- Clarity and suitability of the responsibilities and lines of authority among the various team organizations (including subcontractors), and the roles of key personnel and percentages of their time.
- Acceptability of the management, coordination, and control procedures and systems to be utilized in the conduct of the proposed project.

The offeror must provide a detailed Project Management Plan to be used by the proposing organization, including a detailed organizational chart showing the lines of authority and the responsibilities of the research organization, as well as all team members. Discussions of the personnel assigned to the project, commitment of the personnel to the project for the full term, and the relationships of the organization with the offeror's corporate structure should also be included.

L.7(d) PREPARATION INSTRUCTIONS: VOLUME III - COST PROPOSAL

(a) General

- (1) The Cost Proposal consists of the offeror's estimated costs to perform the desired work as set forth in the Statement of Work. As a minimum, the Cost Proposal shall contain the information specified below, **BROKEN DOWN ON A TASK BY TASK BASIS IN ACCORDANCE WITH THE OFFEROR'S FISCAL YEAR, ALONG WITH A SUMMARY OF THE TOTAL PROJECT COSTS.**

Since each Cost Proposal shall be evaluated to determine such matters as cost realism, reasonableness, understanding of the magnitude of effort, as well as being the basis for any necessary cost negotiation, it should be accurate, complete, and well documented.

COST INFORMATION IS NOT TO BE INCLUDED IN THE TECHNICAL PROPOSAL.

- (2) Modifications to Cost Proposal.

Any modification to the Cost Proposal shall clearly indicate the cost impact of the modification to the same level of detail shown in the original proposal.

Once the prospective offeror has been selected, the estimated costs submitted with the proposal shall not be subject to increase, except for changes in certified cost or pricing data submitted with the proposal, unless changes are made in the requirements of the request for proposal.

Furthermore, increases shall be considered only in regard to those requirements that are actually affected by the changes (whether they are

initiated by the Government, or by the offeror), and then only to the extent that such increases will be considered separately, and not as part of a combined overall negotiation of the estimated cost and fee for the proposed award.

(3) Certified Cost or Pricing Data.

In accordance with P.L. 87-653, as implemented by FAR 15.403, offerors may be required to certify that any cost or pricing data submitted is accurate, complete and current. In such an event, the required format for the certification can be found in FAR 15.406-2. The executed certification must be presented to the Contracting Officer after negotiations are concluded and before award can be made. FAR 15.407-1 contains applicable procedures where it is subsequently found that defective cost or pricing data was submitted.

In accordance with FAR 15.403, any offeror required to submit the above certification shall also be required to either submit, or arrange for the submission, of accurate, complete, and current cost or pricing data from his prospective subcontractors whose individual cost estimates exceed the limits established in FAR 15.404-3. This requirement may be waived under the circumstances as set forth in FAR 15.403-1.

Notwithstanding the above paragraphs, any successful offeror shall comply with applicable requirements of the "Subcontractor Cost or Pricing Data" clause of the award.

(b) Format and Content. At a minimum, proposals shall contain the information specified below in accordance with the following general format:

- (1) Proposal Form. The Proposal Form (Appendix II) is to be fully executed and used as the Volume III, Cost Proposal cover sheet. This form must be signed by an authorized individual of the proposing organization.
- (2) Cost and Pricing Data. Cost and pricing data to be submitted by the offeror shall follow the format and level of detail prescribed in the alternate FETC Format for submission of the Cost Proposal, provided in Appendix IV.

(c) Additional Information

(1) Estimating Procedure.

Provide a discussion of the offeror's estimating procedure and the rationale used in the development of the proposed costs. For effective negotiations, it is essential that there be a clear understanding of:

- a. The existing verifiable data.
- b. The judgmental factors applied in projecting from known data to the estimate.
- c. The contingencies used by the offeror in the proposed costs.

(2) Subcontracts.

The following information is required FOR EACH PLANNED SUBCONTRACT OF \$100,000 OR MORE:

- a. A brief description of the work to be subcontracted.
- b. The number of quotes solicited and received.
- c. The cost or price analysis performed by the offeror.
- d. Names and addresses of the subcontractors tentatively selected and the basis for their selection; i.e. low bidder, delivery schedule, technical competence.
- e. The offeror's rating of the subcontractor's competence; i.e. fair, good, excellent.
- f. Type of contract and estimated cost and fee or profit.
- g. Affiliation with the offeror, if any.
- h. Whether or not the subcontractor is a small business concern.
- i. The extent of subcontract supervision required.
- j. Whether or not the subcontractor is a minority business concern.

(3) Consultants.

If the offeror proposed the use of consultants, provide the following FOR EACH NAMED CONSULTANT:

- a. Resume.
- b. Identification of all cost elements included in the consultant's daily/hourly rates, plus a detailed explanation of any costs that would be charged over and above the rates.
- c. A signed consulting agreement between the offeror and the consultant.
- d. A signed statement from the consultant that the proposed rate is a "most favored customer rate", or the reason such a rate was not offered.
- e. A determination by the offeror that the rate proposed is comparable to the rates of other consultants doing similar types of work.
- f. The offeror shall prepare a technical evaluation of the need to employ a consultant, which shall include the consultant's technical ability to perform the desired work, along with a statement and reason that in-house resources are unavailable for performance of the effort.

In those cases where a consultant IS NOT NAMED but the offeror realizes a need will exist, the offeror shall support the proposed daily rate by supplying the information in (e) and (f) above.

(4) Cost Sharing, In-kind Contributions, etc.

DOE views that a project is likely to be successful if there is strong project team commitment as evidenced by the willingness to make resources available, the amount of cost sharing proposed by the organization(s) and the adequacy and completeness of the offeror's plan to fund the non-Federal share of the project's costs. The degree of commitment to the proposed project will be measured primarily by the level of financial risk assumed by the Project Team members and their ability to meet that commitment.

The offeror shall provide the following information as supporting data to demonstrate the offeror's business and financial condition and commitment to the project:

- A funding plan that identifies all sources of project funds and demonstrates that these funds are sufficient to cover all non-federal funding required for the duration of the project, including plans for funding any potential project cost increases. For funding which is to come from the participant a discussion of the degree of certainty that the funds required will be available must be provided, including a full description of any liabilities, limitations, conditions or other factors which could affect availability of proposer funding. If external (to the offeror or parents) financing will be a source of funds, the proposer should discuss the terms and conditions of such financing to the extent these are known. Information should be provided concerning the proposed cost-sharing arrangements, indicating that committed funds will be available as needed. Forbearance of fee/profit will not be considered cost sharing under this PRDA. Examples of arrangements and the information required are as follows (however, note that arrangements are not limited to these three):

- (i) Cash or cash equivalent (i.e. direct salary): Indicate the percentage proposed and identify the base to which the rate would be applied.
- (ii) Elimination of certain items from indirect pools: Identify which elements.
- (iii) In-kind contribution of facilities and/or equipment: Explain how the value of the contribution was calculated.
- o The value that will be allowed for contributions of currently depreciating property is the depreciation schedule being used and allowed under statute or IRS regulation for such property. This depreciation will be limited in its cost share value to the

depreciation claimed during the life of the contract. For contribution of property by tax exempt organizations, a fair use value will be assigned to the property equivalent to the value that would be assigned were the owner not tax exempt.

- o For fully depreciated property contributed to the project as cost share, a fair use value for the equipment or facility will be assigned by DOE. The fair use value will be the average annual depreciation used by the Proposer as permitted under statute or IRS regulations under which it was depreciated.
- o Contributed land, equipment and facilities will be counted as cost sharing only for the periods during which they are brought into use for the contract.

Any proposed cost sharing method or value is subject to independent evaluation and audit by DOE in accordance with DEAR 917.70. The cost participation shall be applied to actual allowable contract costs incurred as a whole rather than to any individual element of cost.

- an audited or unaudited financial statement for the most recently completed fiscal year for each member of the offeror's team shall be included in the proposal.

(5) Government Furnished Property

If Government furnished Property is proposed, the following Information is required.

- (a) A list or description of all Government production and research property that the offeror or its subcontractors propose to use on a rent-free basis. The list shall include property offered for use in the solicitation, as well as property already in possession of the offeror and its subcontractors under other contracts.
- (b) Identification of the facilities contract or other instrument under which property already in possession of the offeror and its subcontractors is held, and the written permission for its use from the contracting officer having cognizance of the property.
- (c) The dates during which the property will be available for use (including the first, last, and all intervening months) and, for any property that will be used concurrently in performing two or more contracts, the amounts of the respective uses in sufficient detail to support proration of the rent.
- (d) The amount of rent that would otherwise be charged, computed in accordance with 45.403.

(6) Company Compensation Policies.

The offeror shall briefly describe company compensation policies in the following areas (existing company publications may be furnished):

a. Salary Increases:

Merit
Cost-of-Living

b. Fringe Benefits:

Paid Absences (Vacations, Sick Leave, Holidays)
Insurance Contributions
Bonuses & Other Employee Incentives
Severance
Retirement

c. Travel and Per Diem

(7) High Value Equipment.

Offerors are informed that when the use of High Value Equipment (in excess of \$10,000) is applicable to the procurement, the Government reserves the right to require the submission of the feasibility of lease versus purchase studies by the successful offeror.

(8) Use of ADPE.

If the use of automatic data processing equipment (ADPE) is proposed by the offeror, the Government reserves the right to require the preparation of (1) feasibility and (2) lease versus purchase studies by the successful offeror.

(d) Summary of Exceptions and Deviations

The offeror shall identify and explain any exceptions, deviations, or conditional assumptions taken with respect to the requirements of the PRDA with respect to the Cost Proposal.

Any exceptions taken must contain sufficient amplification and justification to permit evaluation. All benefits to the Government shall be explained for each exception taken.

Such exceptions will not, of themselves, automatically cause a proposal to be termed unacceptable. A large number of exceptions, or one or more significant

exceptions not providing benefit to the Government may, however, result in rejection of your proposal(s) as unacceptable.

L.8 CONTENT OF RESULTING CONTRACT

Any contract awarded as a result of this PRDA will contain Part I -- The Schedule (see Sections A through H), Part II -- Contract Clauses (see Section I), and Part III, Section J -- List of Documents, Exhibits and Other Attachments (excluding those attachments included in this PRDA relating to submission of proposals). Blank areas appearing in these sections, indicated by "To Be Determined [TBD]" will be completed after negotiations.

L.9 AWARD INFORMATION

Written notice to unsuccessful offerors and contract award information will be promptly released in accordance with DOE regulations applicable to negotiated procurement.

L.10 AGENCY PROTEST REVIEW (DEAR 952.233-5, SEP 1996)

Protests to the agency will be decided either at the level of the Head of Contracting Activity (HCA) or at the Headquarters level. DOE's agency protest procedures, set forth in DEAR 933.103, elaborate on these options and on the availability of a stay of a procurement that is protested to the agency. DOE encourages potential protesters to discuss their concerns with the Contracting Officer prior to filing a protest.

L.11 SERVICE OF PROTEST (FAR 52.233-2, AUG 1996; DEAR 952.233-2)

(a) Protests, as defined in section 33.101 of the Federal Acquisition Regulation, that are filed directly with an agency, and copies of any protests that are filed with the General Accounting Office (GAO), shall be served on the Contracting Officer (addressed as follows) by obtaining written and dated acknowledgment of receipt from the Contracting Officer:

CONTRACTING OFFICER
ACQUISITION & ASSISTANCE DIVISION
U. S. DEPARTMENT OF ENERGY
FEDERAL ENERGY TECHNOLOGY CENTER
P.O. BOX 10940, MS 921-143
PITTSBURGH, PA 15236-0940

(b) The copy of any protest shall be received in the office designated above within one day of filing a protest with the GAO.

(c) Another copy of a protest filed with the General Accounting Office shall be furnished to the following address within the time periods described in paragraph (b) of this clause:

U.S. DEPARTMENT OF ENERGY
ASSISTANT GENERAL COUNSEL FOR PROCUREMENT
AND FINANCIAL ASSISTANCE (GC-61)
1000 INDEPENDENCE AVENUE, SW
WASHINGTON, DC 20585
FAX: (202) 586-4546

L.12 NOTICE OF PROTEST FILE AVAILABILITY (DEAR 952.233-4, SEP 1996)

(a) If a protest of this procurement is filed with the General Accounting Office (GAO) in accordance with 4 CFR Part 21, any actual or prospective offeror may request the Department of Energy to provide it with reasonable access to the protest file pursuant to FAR 33.104(a)(3)(ii), implementing section 1065 of Public Law 103-355. Such request must be in writing and addressed to the contracting officer (see Section L) for this procurement.

(b) Any offeror who submits information or documents to the Department for the purpose of competing in this procurement is hereby notified that information or documents it submits may be included in the protest file that will be available to actual or prospective offerors in accordance with the requirements of FAR 33.104(a)(3)(ii). The Department will be required to make such documents available unless they are exempt from disclosure pursuant to the Freedom of Information Act. Therefore, offerors should mark any documents as to which they would assert that an exemption applies (see 10 CFR part 1004).

L.13 FACILITIES CAPITAL COST OF MONEY 52.215-16, OCT 1997

(a) Facilities capital cost of money will be an allowable cost under the contemplated contract, if the criteria for allowability in subparagraph 31.205-10(a)(2) of the Federal Acquisition Regulation are met. One of the allowability criteria requires the prospective contractor to propose facilities capital cost of money in its offer.

(b) If the prospective Contractor does not propose this cost, the resulting contract will include the clause Waiver of Facilities Capital Cost of Money.

L.14 REQUIREMENTS FOR COST OR PRICING DATA OR INFORMATION OTHER THAN COST OR PRICING DATA with ALTERNATE I, 52.215-20, OCT 1997

(a) Exceptions from cost or pricing data.

(1) In lieu of submitting cost or pricing data, offerors may submit a written request for exception by submitting the information described in the following subparagraphs. The Contracting Officer may require additional supporting information, but only to the extent necessary to determine whether an exception should be granted, and whether the price is fair and reasonable.

(i) Identification of the law or regulation establishing the price offered. If the price is controlled under law by periodic rulings, reviews, or similar actions of a

governmental body, attach a copy of the controlling document, unless it was previously submitted to the contracting office.

(ii) Commercial item exception. For a commercial item exception, the offeror shall submit, at a minimum, information on prices at which the same item or similar items have previously been sold in the commercial market that is adequate for evaluating the reasonableness of the price for this acquisition. Such information may include--

(A) For catalog items, a copy of or identification of the catalog and its date, or the appropriate pages for the offered items, or a statement that the catalog is on file in the buying office to which the proposal is being submitted. Provide a copy or describe current discount policies and price lists (published or unpublished), e.g., wholesale, original equipment manufacturer, or reseller. Also explain the basis of each offered price and its relationship to the established catalog price, including how the proposed price relates to the price of recent sales in quantities similar to the proposed quantities;

(B) For market-priced items, the source and date or period of the market quotation or other basis for market price, the base amount, and applicable discounts. In addition, describe the nature of the market;

(C) For items included on an active Federal Supply Service Multiple Award Schedule contract, proof that an exception has been granted for the schedule item.

(2) The offeror grants the Contracting Officer or an authorized representative the right to examine, at any time before award, books, records, documents, or other directly pertinent records to verify any request for an exception under this provision, and the reasonableness of price. For items priced using catalog or market prices, or law or regulation, access does not extend to cost or profit information or other data relevant solely to the offeror's determination of the prices to be offered in the catalog or marketplace.

(b) Requirements for cost or pricing data. If the offeror is not granted an exception from the requirement to submit cost or pricing data, the following applies:

(1) The offeror shall prepare and submit cost or pricing data and supporting attachments in accordance with **APPENDIX IV**.

(2) As soon as practicable after agreement on price, but before contract award (except for unpriced actions such as letter contracts), the offeror shall submit a Certificate of Current Cost or Pricing Data, as prescribed by FAR 15.406-2.

L.15 52.252-1 SOLICITATION PROVISIONS INCORPORATED BY REFERENCE (FEB 1998)

This solicitation incorporates one or more solicitation provisions by reference, with the same force and effect as if they were given in full text. Upon request, the contracting officer will make their full text available. The offeror is cautioned that the listed provisions may include blocks that must be completed by the offeror and submitted with its quotation or offer. In lieu of submitting the full text of those provisions, the offeror may identify the provision by paragraph identifier and provide the appropriate information with its quotation or offer. Also, the full text of a clause may be accessed electronically at this/these address(es):

FAR:

<http://www.arnet.gov/far/>

DEAR:

<http://www.pr.doe.gov/pr6.html>

FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1) AND DEPARTMENT OF ENERGY ACQUISITION REGULATIONS (48 CFR CHAPTER 9) PROVISIONS

| NUMBER | DATE | TITLE |
|-----------------|----------|--|
| FAR 52.214-34 | APR 1991 | SUBMISSION OF OFFERS IN THE ENGLISH LANGUAGE |
| FAR 52.214-35 | APR 1991 | SUBMISSION OF OFFERS IN U.S. CURRENCY |
| FAR 52.215-16 | OCT 1997 | FACILITIES CAPITAL COST OF MONEY |
| DEAR 952.226-70 | JUN 1997 | 952.226-70 SUBCONTRACTING GOALS UNDER SECTION 3021(A) OF THE ENERGY POLICY ACT OF 1992 (PUB. L. 102-486) |
| DEAR 952.227-83 | APR 1984 | RIGHTS IN TECHNICAL DATA SOLICITATION INSTRUCTION |
| DEAR 952.227-84 | APR 1984 | RIGHT TO REQUEST PATENT WAIVER |
| DEAR 952.233-4 | SEP 1996 | NOTICE OF PROTEST FILE AVAILABILITY |
| DEAR 952.233-5 | SEP 1996 | AGENCY PROTEST REVIEW |

L.16 DOE ISSUING OFFICE AND POINT OF CONTACT

U.S. Department of Energy
Federal Energy Technology Center
626 Cochrans Mill Road
P.O. Box 10940
Pittsburgh, PA 15236-0940

Point of Contact: Martin J. Byrnes
Telephone No.: (412) 892-4486
Telefacsimilie No.: (412) 892-6216
E-mail Address: byrnes@fetc.doe.gov

L.17 TIME, DATE AND PLACE PROPOSALS ARE DUE

- (a) The date and time for submission of proposals shall be NO LATER THAN APRIL 23, 1998, 4:00 p.m., local prevailing time at the place designated for receipt of proposals. (See the proposal submission instructions, including the provision describing treatment of late submissions, modifications, and withdrawals of proposals.)

- (b) Proposal Submission by U.S. Mail

Proposals must be received through the below mailing address and marked as follows:

U. S. DEPARTMENT OF ENERGY
NATIONAL PETROLEUM TECHNOLOGY OFFICE
WILLIAMS CENTER, TOWER ONE
ONE WEST 3RD STREET, SUITE 1658
TULSA, OK 74103
ATTN: DIANE FRANKLIN, CONTRACTS OFFICE

- (c) Proposal Submission by Other than U.S. Mail

Offerors electing to submit proposals by means other than the U.S. Mail, including commercial courier service, assume the full responsibility of insuring that proposals are received at the following hand-carry address by the date and time specified above:

U. S. DEPARTMENT OF ENERGY
NATIONAL PETROLEUM TECHNOLOGY OFFICE
WILLIAMS CENTER, TOWER ONE
ONE WEST 3RD STREET, SUITE 1658
TULSA, OK 74103
ATTN: DIANE FRANKLIN, CONTRACTS OFFICE

Proposals must be closed and sealed as if for mailing.

(d) External Marking of Proposals

Proposals shall be marked with the following information:

- (1) Address of Proposer
- (2) Solicitation Number
- (3) Due Time and Date of Proposals
- (4) The following Notice:

NOTICE TO DOE MAIL ROOM: DO NOT OPEN. THIS IS A PROPOSAL
UNDER THE ABOVE IDENTIFIED SOLICITATION.

L.18 52.216-1 TYPE OF CONTRACT (APR 1984)

The Government contemplates award of a cost-sharing contract resulting from this solicitation. However, the Government reserves the right to negotiate a different type of contract.

PART V - SECTION M
EVALUATION FACTORS FOR AWARD

M.1 GENERAL

Proposals will be evaluated in accordance with applicable DOE acquisition policies and procedures. Evaluation will be performed to determine the offeror's understanding of work to be performed, technical approach, potential for completing the work as specified in the solicitation, cost reasonableness, realism, and ranking with competing offerors.

Award will be made to that responsible offeror(s) whose offer(s) conforming to this solicitation is (are) considered most advantageous to the Government, considering the Evaluation Criteria in this Section M.

M.2 EVALUATION CRITERIA & RELATIVE IMPORTANCE

Volume I - Qualification, Offer and Other Documents Proposal

The Qualification, Offer, and Other Documents proposal submitted in response to this PRDA will be evaluated and will receive a pass or fail rating according to the following requirement:

- 1) Volume I must include an executed cost sharing certification (Appendix IIA) from a duly authorized corporate official committing the proposer to the minimum cost sharing requirements of 20%. **PROPOSALS NOT OFFERING THE MINIMUM COST SHARING REQUIREMENTS WILL BE REJECTED AND NO FURTHER EVALUATION WILL BE DONE BY DOE.**
- 2) Volume I will also be reviewed to ensure that other information and documentation specified in L.7(b) is provided. Failure to provide the requested information and documentation may result in rejection of a proposal.

Volume II - Technical Proposal

Technical proposals submitted in response to this PRDA will be evaluated and scored in accordance with the criteria listed below:

| CRITERION | DESCRIPTION | WEIGHT PERCENT |
|-----------|---|----------------|
| I: | Technical Approach | |
| I.A.: | Understanding of Technical Issues | 35 |
| I.B.: | Quality and Completeness of the Statement of Work | <u>25</u> |
| | Subtotal, Criterion I | 60 |

| | | |
|--------|---|------------|
| II: | Key Personnel, Facilities, and Management Capabilities | |
| II.A.: | Credentials, Experience, and Availability of Key Personnel | 20 |
| II.B.: | Existing Facilities and Equipment | 10 |
| II.C.: | Management Capabilities | <u>10</u> |
| | Subtotal, Criterion II | 40 |
| TOTAL: | | <u>100</u> |

Relative Importance

The above criteria are listed by weighted factors as a percent of total proposal value. Sixty percent of the proposal shall be assigned to Criterion I and forty percent shall be assigned to Criterion II.

Volume III - Cost

Evaluation Criteria

Cost Proposals submitted in response to this PRDA will be evaluated in accordance with the criteria listed below but will neither be point scored nor adjectively rated:

1. Cost realism and accuracy
2. Reasonableness of the total estimated cost as compared to the scope and complexity of the work to be performed.

Relative Importance

No relative importance is assigned to the cost criteria.

M.3 PROCESS

The evaluation and selection process will consist of the following four (4) distinct phases: 1) Qualification 2) preliminary review; 3) comprehensive evaluation and ranking; and 4) application of program policy factors and selection.

M.3(a) Qualification

In order to be considered in the Preliminary Evaluation phase, a proposal must successfully pass qualification. Failure to meet the Qualification Criterion will result in rejection of the proposal. In the event that a proposal is rejected, a notice will be sent to the proposer stating the reason(s) that the proposal will not be considered for contract award under this solicitation.

The proposal must meet the following Qualification Criterion:

- o The proposal must provide an executed cost sharing certification (see Appendix IIA) from a duly authorized corporate official committing the proposer to the minimum cost sharing requirement of 20%.

M.3(b) PRELIMINARY REVIEW

Proposals passing the qualification review for this solicitation shall be subjected to a Preliminary Review. In order to be considered for Comprehensive Evaluation, a proposal must successfully pass the Preliminary Review. Failure to meet any one of the Preliminary Evaluation requirements provided below will result in rejection of the proposal.

1. Proposes work that is relevant to DOE's Program objectives specified herein (see Part I, Section J, Attachment A);
2. Contains sufficient technical, cost, Environmental and other required information as described in the solicitation to enable comprehensive evaluation;
3. Has been signed by a responsible official of the proposing organization or authorized to obligate such organization.

In the event that, upon completion of the preliminary review, a proposal is not accepted for comprehensive evaluation, a prompt notice shall be sent to the offeror indicating the reason(s) that the proposal will not receive further consideration under this solicitation.

M.3(c) COMPREHENSIVE EVALUATION AND FINAL RANKING

M.3(c)(1) General

All proposals which successfully pass Preliminary Review shall be subjected to a Comprehensive Evaluation. The Comprehensive Evaluation shall be performed against the criteria listed in this section and a final ranking shall be established in accordance with applicable departmental policies and procedures. Section L provides instructions for preparing each volume of the proposal and describes what information each volume should contain. Each volume of the proposal generally correlates with evaluation criteria listed herein.

- The evaluation of Volume I - Qualification, Offer and Other Documents, is conducted to ensure the Offeror provides the Cost Sharing Certification and other appropriate information.
- The evaluation of Volume II - Technical Proposals, is conducted to determine the relative merits of each offeror's technical proposal in accordance with the pre-established weighted evaluation criteria. This evaluation results in a numerical point score for each technical proposal.

- The evaluation of Volume III - Cost Proposals, is conducted to assess realism and determine reasonableness. Cost proposals will not be point scored nor adjectively rated.

M.3(d)(2) Overall Relative Importance of Volumes I Through III

Proposals submitted will be comprehensively evaluated in accordance with the following categories of criteria in descending order of importance with technical criteria being predominant in importance:

- Technical
- Cost
- Qualification, Offer and other Documents

In establishing the final ranking of proposals following the comprehensive evaluation, the cost to the Government may become a deciding factor. The relative importance of the technical proposal is substantially greater than that of the cost proposal, in determining the value to the Government. An offer containing a superior technical proposal will have an advantage over offers which contain less qualified technical proposals but with lower evaluated costs only so long as the offer with a superior technical proposal is considered to be worth the cost differential. Proposals containing an incomplete or unacceptable environmental questionnaire may be rejected.

In accordance with the Energy Policy Act (as implemented by DEAR 926.7005) in instances in which two or more proposals being considered for final selection are ranked as essentially equal, after consideration of all technical and cost evaluation factors, if one of the proposals is from an offeror among an Energy Policy Act target group, that offeror will be selected for award.

M.3(e) APPLICATION OF PROGRAM POLICY FACTORS AND SELECTION

Program Policy Factors

These factors, while not indicators of the proposal's merit, e.g., technical excellence, environmental impact, cost, proposer's ability, etc., may be essential to the process of selecting the proposal that individually or collectively, will best achieve the program objectives. Such factors are often beyond the control of the offeror, and proposers should recognize that some very good proposals may not receive an award because they do not fit within a mix of projects which maximizes the probability of achieving the DOE's overall research and development objectives. Therefore, subsequent to proposal evaluations, the following considerations will be used by the Source Selection Official to assist in determining which of the ranked proposals shall receive DOE funding support:

1. It is desirable to support a diversity of projects from organizations of various size, firms in different industries, academe, and institutions having different philosophies, in order to provide a balanced programmatic effort and a variety of different technical perspectives.
2. It is desirable to select a group of projects which represent a diversity of technical approaches and methods.

The above factors will be independently considered by the Source Selection Official (SSO) in determining the optimum mix of proposals that will be selected for support. These policy factors will provide the SSO with the capability of developing, from the competitive procurement, a broad involvement of organizations and organizational ideas, which both enhance the overall technology research effort and upgrade the program content to meet the anticipated long-range goals of DOE.

M.4 Selection

The Source Selection Official will select a mix of proposals for award from the finding(s) established by the proposal evaluation panel. The Source Selection Official will take into account the relative technical, environmental, and cost rankings as well as applicable program policy factors in determining which proposal(s) will best satisfy program objectives. The rating and ranking of proposals will be calculated for each Area of Interest, therefore it is possible that selection for contracts of one Area of Interest could occur prior to the selection of contracts in another Area of Interest.

APPENDIX I

PRDA DE-RA26-98BC15200

Oil Technology R & D Program

INTENTION TO PROPOSE

OFFERORS ARE REQUESTED TO COMPLETE THE ENTRIES BELOW, AND DETACH AND RETURN THIS PAGE BY THE EARLIEST PRACTICAL DATE. THIS WILL ENABLE THE DOE TO MAKE NECESSARY ARRANGEMENTS FOR PROPOSAL EVALUATIONS.

WE (CHECK ONE)

☐ DO INTEND TO SUBMIT A PROPOSAL

☐ DO NOT INTEND TO SUBMIT A PROPOSAL FOR THE FOLLOWING REASONS:

COMPANY NAME: _____

AUTHORIZED SIGNATURE: _____
[TYPED OR PRINTED]

NAME AND TITLE: _____

DATE: _____

RETURN THIS PAGE BY MAIL, FAX OR E-MAIL TO:

U.S. DEPARTMENT OF ENERGY
FEDERAL ENERGY TECHNOLOGY CENTER
ACQUISITION AND ASSISTANCE DIVISION
P. O. BOX 10940, MS 921-143
PITTSBURGH, PENNSYLVANIA 15236-0940
ATTN.: MARTIN J. BYRNES
PRDA NO. DE-RA26-98BC15200
FAX: (412) 892-6216
E-MAIL: byrnes@fetcdoe.gov

| For DOE Use | |
|-------------|-------------|
| Prop No. | Copy No. |

VOLUME I - QUALIFICATION, OFFER AND OTHER DOCUMENTS
U. S. DEPARTMENT OF ENERGY
PROGRAM RESEARCH & DEVELOPMENT ANNOUNCEMENT

PROPOSAL COVER SHEET/CERTIFICATION

PROJECT TITLE:

PROPOSED DURATION (mos.): REQUESTED STARTING DATE: **1998**

RECOMMENDED PROGRAM CATEGORY: Oil Technology R & D Program (check one)

Area of Interest #1 - **Advanced Diagnostics and Imaging Systems:**

- ☐ Pore scale imaging ☐ Wettability and imbibition
☐ In-situ relative permeability ☐ Up-scaling techniques

Area of Interest #2 - **Production Research:**

- ☐ Gas Flooding ☐ Chemical Flooding
☐ Microbial Flooding ☐ Heavy Oil Recovery
☐ Novel Processes ☐ Reservoir Simulation

Area of Interest #3 - **Integrated Prospecting Concepts:**

- ☐ Modeling of dynamic sedimentary hydrocarbon systems
☐ Risk Assessment technology

Area of Interest #4 - **Processing Research:**

- ☐ Pollution Prevention
☐ PM_{2.5} Science-Based Regulations

Area of Interest #5 - **Oil and Gas Environmental Research**

- ☐ Soil Remediation ☐ Innovative Waste and Produced Water Management
☐ Air Emissions ☐ Risk Assessment/Streamlining

NAME OF SUBMITTING ORGANIZATION:

ADDRESS (PO Box/Street Address,
City, State, Zip Code):

COUNTY:

CONGRESSIONAL DISTRICT:

NAME OF PROJECT MANAGER:

POSITION TITLE:

AREA CODE/TELEPHONE NO.:

FACSIMILE NO (AC/#):

INTERNET ADDRESS:

- PROPRIETARY INFORMATION: Does this volume contain proprietary or business confidential information (Check One)? ☐ YES ☐ NO
If your answer is YES, complete the "Notice of Restrictions on Disclosure and Use of Data" below:

FAR 52.215-12 RESTRICTION ON DISCLOSURE AND USE OF DATA

"This proposal, Volume _____, includes data that shall not be disclosed outside the Government and shall not be duplicated, used, or disclosed--in whole or in part-- for any purpose other than to evaluate this proposal or quotation. If, however, a contract is awarded to this offeror or quoter as a result of, or in connection with the submission of this data, the Government shall have the right to duplicate, use, or disclose the data to the extent provided in the resulting contract. This restriction does not limit the Government's right to use information contained in this data if it is obtained from another source without restriction. The data subject to this restriction are contained in sheets _____."

(insert applicable page numbers)

In addition, each page of the proposal containing proprietary data shall be marked with the following legend:

"Use or disclosure of data contained on lines specifically identified by asterisk (*) are subject to the restriction on the cover page of this proposal."

| For DOE Use | |
|-------------|-------------|
| Prop No. | Copy No. |

VOLUME II - TECHNICAL
U. S. DEPARTMENT OF ENERGY
PROGRAM RESEARCH & DEVELOPMENT ANNOUNCEMENT

PROPOSAL COVER SHEET/CERTIFICATION

PROJECT TITLE:

PROPOSED DURATION (mos.):

REQUESTED STARTING DATE:

1998

RECOMMENDED PROGRAM CATEGORY: Oil Technology R & D Program (check one)

Area of Interest #1 - **Advanced Diagnostics and Imaging Systems:**

- ☐ Pore scale imaging ☐ Wettability and imbibition
☐ In-situ relative permeability ☐ Up-scaling techniques

Area of Interest #2 - **Production Research:**

- ☐ Gas Flooding ☐ Chemical Flooding
☐ Microbial Flooding ☐ Heavy Oil Recovery
☐ Novel Processes ☐ Reservoir Simulation

Area of Interest #3 - **Integrated Prospecting Concepts:**

- ☐ Modeling of dynamic sedimentary hydrocarbon systems
☐ Risk Assessment technology

Area of Interest #4 - **Processing Research:**

- ☐ Pollution Prevention
☐ PM_{2.5} Science-Based Regulations

Area of Interest #5 - **Oil and Gas Environmental Research**

- ☐ Soil Remediation ☐ Innovative Waste and Produced Water Management
☐ Air Emissions ☐ Risk Assessment/Streamlining

NAME OF SUBMITTING ORGANIZATION:

ADDRESS (PO Box/Street Address,

City, State, Zip Code):

COUNTY:

CONGRESSIONAL DISTRICT:

NAME OF PROJECT MANAGER:

POSITION TITLE:

AREA CODE/TELEPHONE NO.:

FACSIMILE NO (AC/#):

INTERNET ADDRESS:

- **PROPRIETARY INFORMATION:** Does this volume contain proprietary or business confidential information (Check One)? ☐ YES ☐ NO
If your answer is YES, complete the "Notice of Restrictions on Disclosure and Use of Data" below:

FAR 52.215-12 RESTRICTION ON DISCLOSURE AND USE OF DATA

"This proposal, Volume _____, includes data that shall not be disclosed outside the Government and shall not be duplicated, used, or disclosed--in whole or in part-- for any purpose other than to evaluate this proposal or quotation. If, however, a contract is awarded to this offeror or quoter as a result of, or in connection with the submission of this data, the Government shall have the right to duplicate, use, or disclose the data to the extent provided in the resulting contract. This restriction does not limit the Government's right to use information contained in this data if it is obtained from another source without restriction. The data subject to this restriction are contained in sheets _____."

(insert applicable page numbers)

In addition, each page of the proposal containing proprietary data shall be marked with the following legend:

"Use or disclosure of data contained on lines specifically identified by asterisk (*) are subject to the restriction on the cover page of this proposal."

| For DOE Use | |
|-------------|-------------|
| Prop No. | Copy No. |

VOLUME III - COST
U. S. DEPARTMENT OF ENERGY
PROGRAM RESEARCH & DEVELOPMENT ANNOUNCEMENT

PROPOSAL COVER SHEET/CERTIFICATION

PROJECT TITLE:

PROPOSED DURATION (mos.):

REQUESTED STARTING DATE:

1998

RECOMMENDED PROGRAM CATEGORY: Oil Technology R & D Program (check one)

Area of Interest #1 - **Advanced Diagnostics and Imaging Systems:**

- ☐ Pore scale imaging ☐ Wettability and imbibition
☐ In-situ relative permeability ☐ Up-scaling techniques

Area of Interest #2 - **Production Research:**

- ☐ Gas Flooding ☐ Chemical Flooding
☐ Microbial Flooding ☐ Heavy Oil Recovery
☐ Novel Processes ☐ Reservoir Simulation

Area of Interest #3 - **Integrated Prospecting Concepts:**

- ☐ Modeling of dynamic sedimentary hydrocarbon systems
☐ Risk Assessment technology

Area of Interest #4 - **Processing Research:**

- ☐ Pollution Prevention
☐ PM_{2.5} Science-Based Regulations

Area of Interest #5 - **Oil and Gas Environmental Research**

- ☐ Soil Remediation ☐ Innovative Waste and Produced Water Management
☐ Air Emissions ☐ Risk Assessment/Streamlining

NAME OF SUBMITTING ORGANIZATION:

ADDRESS (PO Box/Street Address,
City, State, Zip Code):

COUNTY:

CONGRESSIONAL DISTRICT:

NAME OF PROJECT MANAGER:

POSITION TITLE:

AREA CODE/TELEPHONE NO.:

FACSIMILE NO (AC/#):

INTERNET ADDRESS:

- **PROPRIETARY INFORMATION:** Does this volume contain proprietary or business confidential information (Check One)? ☐ YES ☐ NO
If your answer is YES, complete the "Notice of Restrictions on Disclosure and Use of Data" below:

FAR 52.215-12 RESTRICTION ON DISCLOSURE AND USE OF DATA

"This proposal, Volume _____, includes data that shall not be disclosed outside the Government and shall not be duplicated, used, or disclosed--in whole or in part-- for any purpose other than to evaluate this proposal or quotation. If, however, a contract is awarded to this offeror or quoter as a result of, or in connection with the submission of this data, the Government shall have the right to duplicate, use, or disclose the data to the extent provided in the resulting contract. This restriction does not limit the Government's right to use information contained in this data if it is obtained from another source without restriction. The data subject to this restriction are contained in sheets _____."

(insert applicable page numbers)

In addition, each page of the proposal containing proprietary data shall be marked with the following legend:

"Use or disclosure of data contained on lines specifically identified by asterisk (*) are subject to the restriction on the cover page of this proposal."

APPENDIX IIA

Cost Sharing Certification

I, the undersigned authorized representative for _____, (name of organization) for the proposal entitled: “ _____ ” now being submitted to the U.S. Department of Energy for contract award pursuant to Program Research and Development Announcement DE-RA26-98BC15200, do hereby agree to provide a minimum cost share of 20% of total allowable project costs, in accordance with the provisions of this solicitation.

Signature: _____ Date: _____

Name (Typed): _____

Title (Authorized Official): _____

The proposal must be signed by a corporate or company official of the proposing organization who is authorized to legally bind the organization to the performance of the ensuing contract award in its entirety.

The DOE has no obligation to further review the proposal if this cost-sharing certification is not completed and signed by an authorized official of the proposing organization.

ABSTRACT

PROJECT TITLE

OFFEROR'S NAME/ADDRESS

OFFEROR'S PROGRAM MANAGER'S NAME AND TITLE

BRIEF DESCRIPTION OF EFFORT:

(Note: This format is provided as an example only)

APPENDIX IV

FETC ALTERNATE COST PROPOSAL FORMAT

(1) General Instructions.

- a. Table of Contents: All forms, tables, or exhibits should be included and identified in the table of contents.
- b. Page Identification: All pages of the Cost Proposal, including forms, must be numbered. All forms, tables, or exhibits must be clearly identified.
- c. Rounding Off: Final monetary extensions shall be expressed in whole dollars only.

(2) Section One: Exhibits A through I

(3) Section Two: Additional Information

(4) Section Three: Exceptions and Deviations

C. PREPARATION OF EXHIBITS.

Exhibits A through I identified below shall be included in the cost proposal. Sample forms for these exhibits immediately follow these Proposal Preparation Instructions. Unless otherwise stated, the exact form need not be utilized; however, the information indicated both in this section and on the sample forms is required and must be submitted.

Cost information in the same format and level of detail is required for each subcontract or intercompany transfer estimated to exceed \$500,000. The trail from the subcontractor's project cost summaries to the offeror's Subcontracted Items line on Exhibit B-2 should be clear. Provide explanations for any differences between the amount proposed by the subcontractor to the offeror and the amounts proposed by the offeror to the Government for subcontract work.

(1) Exhibit A: Cost Proposal Cover Sheet.

The Cost Proposal Cover Sheet is to be completed by the offeror and all proposed subcontractors. Completion of the remaining exhibits (B through I) will provide supporting documentation for the proposed cost shown in Blocks 6A to 6C of the Cost Proposal Cover Sheet.

(2) Exhibit B-1: Summary of Cost Elements by Task and for Total Project.
Exhibit B-2: Summary of Cost Elements by Task for Offeror's Fiscal Year.

This is a two-part exhibit, with one Exhibit B-1 providing a summary of the total costs for each task AND the resulting total project costs. To support the Exhibit B-1 amounts, an individual Exhibit B-2 is required for each of the offeror's fiscal years in which the project is to be performed, and will provide the costs by task within each fiscal year. All of the Exhibit B-2s will roll up into the project totals shown on the Exhibit B-1.

(3) Exhibit C: Summary of Direct Materials and/or Equipment.

Provide a consolidated priced summary of individual material quantities. Indicate the basis for the proposed prices, i.e. written quotes, catalogue prices, prior invoices, shop

estimates, etc. Where appropriate, identify the vendor and provide the date and information for multiple quotes.

- (4) Exhibit D-1: Summary of Direct Labor.
Exhibit D-2: Summary of Direct Labor Hours by Task

This is a two-part exhibit in which the Exhibit D-1 provides the number of direct labor hours, the direct labor hourly rates, and the labor cost for each labor category proposed. As this information is required for each task by fiscal year, multiple forms are needed so that the total labor for each task matches the labor on the Exhibit B-2 task summaries.

On Exhibit D-2, provide the direct labor hours by task for each labor category for the prime contractor and all subcontractors and consultants. As an attachment to Exhibit D-2, provide a separate page that defines all labor category titles listed on the Exhibit D-2. This definition should discuss the duties normally performed by personnel having that title, and differentiate between levels of the same title (i.e., Senior Engineer vs. Junior Engineer, Technician I vs Technician II, etc.).

- (5) Exhibit E: Summary of Travel.

Each trip must be itemized to identify the destination, number of travelers and length of the trip. Provide the rates used to estimate costs for airfare, lodging, meals and incidental expenses, and ground transportation.

- (6) Exhibit F: Summary of Other Direct Costs.

The amount and basis for proposed direct costs not otherwise supported in the previous exhibits should be included here. For example, the number of hours and the hourly charge for computer time proposed might be included.

- (7) Exhibit G-1: Summary of Indirect Expense Pools and Allocation Bases.
Exhibit G-2: Summary of Proposed Indirect Rates.

This is a two-part exhibit, with one Exhibit G-2 providing a summary of the indirect rates developed on all Exhibit G-1s. An individual Exhibit G-1 is required for EACH indirect cost proposed, e.g. material overhead, labor overhead, G&A expense, etc. Each Exhibit G-1 will contain the major pool expense groupings by line item and dollar amount for the offeror's most recently completed fiscal year, the current fiscal year, and an estimate for the next fiscal year. Similarly, the allocation base must be identified and the dollar amount provided to permit verification of the resulting indirect rates. The inclusive dates of the offeror's fiscal year must also be identified.

If agreement has been reached with another governmental organization for the use of provisional rates, a copy of the approved rate agreement can be submitted in lieu of Exhibit G-1, but an Exhibit G-2 is still required.

- (8) Exhibit H: Summary of Escalation Factors.

This exhibit shall provide, by cost element, the escalation factors (percentages) applied to current costs to estimate the proposed costs for future fiscal years.

(9) Exhibit I: Accounting System Survey.

The Accounting System Survey provides information on the offeror's accounting system capabilities. This exhibit should be completed by an individual responsible for maintaining the offeror's accounting system. The form provided must be used.

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| EXHIBIT B-2 | SUMMARY OF COST ELEMENTS BY TASK AND FOR OFFEROR'S FISCAL YEAR 19__ |
| EXHIBIT C | SUMMARY OF DIRECT MATERIALS AND/OR EQUIPMENT BY TASK AND OFFEROR'S FISCAL YEAR 19__ |
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| EXHIBIT G-1 | SUMMARY OF INDIRECT EXPENSES |
| EXHIBIT G-2 | SUMMARY OF PROPOSED INDIRECT RATES |
| EXHIBIT H | SUMMARY OF ESCALATION FACTORS/PERCENTAGES BY COST ELEMENT |
| EXHIBIT I | PRE-AWARD ACCOUNTING SYSTEM SURVEY |

| | | | | | |
|--|-------------------|---|---|---------------------------|--|
| CONTRACT PRICING PROPOSAL COVER | | 1. SOLICITATION / CONTRACT / MODIFICATION NO. | | FETC APPROVED FORM | |
| | | | | | |
| 2. NAME AND ADDRESS OF OFFEROR (Include ZIP Code) | | 3A. NAME AND TITLE OF OFFEROR'S POINT OF CONTACT | | 3B. TELEPHONE NO. | |
| | | 4. TYPE OF CONTRACT ACTION (Check) | | | |
| | | A. NEW CONTRACT | D. | | |
| | | B. CHANGE ORDER | E. | | |
| | | C. | ✓ | F. PRICE RE | |
| 5. TYPE OF CONTRACT: COST SHARE | | 6. PROPOSED COST (A + B = C) | | | |
| | | A. COST TO DOE \$ | B. COST-SHARE | C. TOTAL COST \$ | |
| 7. PLACE(S) AND PERIOD(S) OF PERFORMANCE | | | | | |
| 8. List and reference the identification, quantity and total price proposed for each contract line item. A line item cost breakdown supporting this recap is required unless otherwise specified by the Contracting Officer. (Continue on reverse, and then on plain paper, if necessary, use same headings.) | | | | | |
| A. LINE | B. IDENTIFICATION | | C. | D. | E. REF. |
| | | | | | |
| 9. PROVIDE NAME, ADDRESS, AND TELEPHONE NUMBER FOR THE FOLLOWING (If available) | | | | | |
| A. CONTRACT ADMINISTRATION OFFICE | | | B. AUDIT OFFICE | | |
| 10. WILL YOU REQUIRE THE USE OF ANY GOVERNMENT PROPERTY IN THE PERFORMANCE OF THIS WORK? (If "yes," identify) <input type="checkbox"/> YES <input type="checkbox"/> NO | | | 11A. DO YOU REQUIRE GOVERNMENT CONTRACT FINANCING TO PERFORM THIS PROPOSED CONTRACT? (If "Yes," complete Item 11B) | | 11B. TYPE OF FINANCING (✓ one) <input type="checkbox"/> ADVANCE <input type="checkbox"/> PROGRESS |
| 12. HAVE YOU BEEN AWARDED ANY CONTRACTS OR SUBCON- TRACTS FOR THE SAME OR SIMILAR ITEMS WITHIN THE PAST 3 YEARS? (If "Yes," identify item(s), customer(s) and contract number(s)) <input type="checkbox"/> YES <input type="checkbox"/> NO | | | 13. IS THIS PROPOSAL CONSISTENT WITH YOUR ESTABLISHED ESTI- MATING AND ACCOUNTING PRACTICES AND PROCEDURES AND FAR PART 31, COST PRINCIPLES? (If "No," explain) <input type="checkbox"/> YES <input type="checkbox"/> NO | | |
| 14. COST ACCOUNTING STANDARDS BOARD (CASB) DATA (Public Law 91-379 as amended and FAR PART 30) | | | | | |
| A. WILL THIS CONTRACT ACTION BE SUBJECT TO CASB REGULATIONS? (If "No," explain in proposal) <input type="checkbox"/> YES <input type="checkbox"/> NO | | | B. HAVE YOU SUBMITTED A CASB DISCLOSURE STATEMENT (CASB DS-1 OR 2)? (If "Yes," specify in proposal the office to which submitted and if determined to be adequate) <input type="checkbox"/> YES <input type="checkbox"/> NO | | |
| C. HAVE YOU BEEN NOTIFIED THAT YOU ARE OR MAY BE IN NON- COMPLIANCE WITH YOUR DISCLOSURE STATEMENT OR COST ACCOUNTING STANDARDS? (If "Yes," explain in proposal) <input type="checkbox"/> YES <input type="checkbox"/> NO | | | D. IS ANY ASPECT OF THIS PROPOSAL INCONSISTENT WITH YOUR DISCLOSED PRACTICES OR APPLICABLE COST ACCOUNTING STANDARDS? (If "Yes," explain in proposal) <input type="checkbox"/> YES <input type="checkbox"/> NO | | |
| This proposal reflects our estimates and/or actual costs as of this date and conforms with the instructions in FAR 15.403-5(b)(1) and Table 15-2. By submitting this proposal, we grant the Contracting Officer or authorized representative(s) the right to examine, at any time before award, those records, which include books, documents, accounting procedures and practices, and other data, regardless of type and form or whether such supporting information is specifically referenced or included in the proposal as the basis for pricing, that will permit an adequate evaluation of the proposed price. | | | | | |
| 15. NAME AND TITLE (Type) | | | 16. NAME OF FIRM | | |
| 17. SIGNATURE | | | | 18. DATE OF SUBMISSION | |

EXHIBIT A

GUIDE FOR CONTRACT PRICING PROPOSAL PREPARATION

1. Quantities Proposed - All Categories: Provide the basis for the proposed quantities of material and labor hours such as current usage, prior history, engineering estimates, etc.
2. Material Prices: Explain the basis for the proposed prices, such as written quotes, catalogue prices, prior invoices, shop estimates, etc. Where appropriate, identify the source of the data and provide the date and information for multiple quotes.
3. Direct Labor Rates: Provide the basis for the proposed hourly rates. For example, the rates are actual rates or averages of actual rates for the labor category(s) proposed, paid as of a given date. If a factor is included to provide for known or anticipated increases, identify the factor and basis. If a factor for fringe benefits is included, e.g. vacations, it should be stated separately.
4. Overhead Rates: Explain how the rates were derived. Describe the methods of computation, including cost element breakdown, prior actual data, projected budgetary data, etc. to facilitate analysis of the pool of expenses and the base cost used to develop the rate. If agreement has been reached with another governmental organization for the use of provisional rates, submit a copy of the approved rate agreement.
5. Special Equipment: Provide information similar to that required for material (item 2 above).
6. Travel: Each trip must be itemized. List the destination, number of travelers, and length of the trip; and provide the rates used to estimate costs for airfare, lodging, meals, local transportation, and any incidentals.
7. Consultants: Indicate whether a firm or an individual is involved. Provide the hourly/daily rate along with the basis for the rate, and certify whether or not the proposed rate is the consultant's "most favored customer" rate. Furnish resumes or similar information regarding qualifications or experience. If travel or incidental expenses are to be charged, give the basis for these costs.
8. Other Direct Costs: The amount and basis for proposed costs not otherwise shown should be included here. For example, the number of hours and hourly charge for any computer time might be included.
9. General and Administrative (G&A) Expense: Provide information similar to that required for overhead costs (item 4 above).

SUMMARY OF COST ELEMENTS BY TASK AND FOR TOTAL PROJECT

| <u>COST ELEMENTS:</u> | <u>Task No.</u> | <u>Task No.</u> | <u>Total Task No.</u> | <u>Project</u> |
|---|-----------------|-----------------|---------------------------|----------------|
| 1. Direct Material | | | | |
| A) Purchased Parts | | | | |
| B) Subcontracted Items | | | | |
| C) Other | | | | |
| Total Direct Materials | | | | |
| 2. Material Overhead | | | | |
| 3. Direct Labor | | | | |
| 4. Labor Overhead | | | | |
| 5. Special Testing | | | | |
| 6. Special Equipment | | | | |
| 7. Travel | | | | |
| 8. Consultants | | | | |
| 9. Other Direct Costs | | | | |
| 10. Total Direct Cost and Overhead | | | | |
| 11. General & Administrative Expense | | | | |
| 12. Facilities Capital Cost of Money | | | | |
| 13. Total Estimated Cost | | | | |
| 14. Fee | | | | |
| 15. Cost Sharing | | | | |
| 16. Total Estimated DOE Funds Required | | | | |

SUMMARY OF COST ELEMENTS BY TASK FOR OFFEROR'S FISCAL YEAR 19____

| <u>COST ELEMENTS:</u> | <u>Task No.</u> | <u>Task No.</u> | <u>Fiscal Year Task No.</u> | <u>Total</u> |
|---|-----------------|-----------------|-------------------------------------|--------------|
| 1. Direct Material | | | | |
| A) Purchased Parts | | | | |
| B) Subcontracted Items | | | | |
| C) Other | | | | |
| Total Direct Materials | | | | |
| 2. Material Overhead | | | | |
| 3. Direct Labor | | | | |
| 4. Labor Overhead | | | | |
| 5. Special Testing | | | | |
| 6. Special Equipment | | | | |
| 7. Travel | | | | |
| 8. Consultants | | | | |
| 9. Other Direct Costs | | | | |
| 10. Total Direct Cost and Overhead | | | | |
| 11. General & Administrative Expense | | | | |
| 12. Facilities Capital Cost of Money | | | | |
| 13. Total Estimated Cost | | | | |
| 14. Fee | | | | |
| 15. Cost Sharing | | | | |
| 16. Total Estimated DOE Funds Required | | | | |

NOTE: An Exhibit B-2 shall be provided for each of the offeror's fiscal years (or portion thereof) in which the project is to be performed.

SUMMARY OF DIRECT MATERIALS AND/OR EQUIPMENT BY
TASK AND OFFEROR'S FISCAL YEAR

| <u>Item Description</u> | <u>Quantity</u> | <u>Unit Cost</u> | <u>Total Cost</u> | <u>Basis for Proposed Costs</u> |
|--|-----------------|----------------------|-----------------------|-------------------------------------|
| ITEMIZE PROPOSED MATERIALS TO COINCIDE WITH THE MATERIALS LINE ON THE EXHIBIT B-2 COST SUMMARIES BY TASK. | \$ | \$ | | |
| SIMILARLY, ANY PROPOSED SPECIAL EQUIPMENT SHOULD BE ITEMIZED SO THAT TASK TOTALS TIE INTO THE SPECIAL EQUIPMENT LINE ON THE EXHIBIT B-2 COST | _____ | _____ | | |
| | | Total Cost | | \$===== |

IN THE "SOURCE OF COST DATA" COLUMN, IDENTIFY THE BASIS FOR THE PROPOSED TERMS, SUCH AS WRITTEN QUOTES, ENGINEERING ESTIMATES, PRIOR INVOICES, CATALOGUE PRICES, ETC.

WHERE APPROPRIATE, ALSO IDENTIFY THE VENDOR AND DATE THE INFORMATION WAS OBTAINED.

SUMMARY OF DIRECT LABOR HOURS BY TASK

| <u>LABOR CATEGORY:</u> | <u>Task No.</u> | <u>Task No.</u> | <u>Task No.</u> | <u>Task No.</u> | <u>Total</u> |
|------------------------|-----------------|-----------------|-----------------|-----------------|--------------|
| Prime Contractor: | | | | | |
| Category 1 | | | | | |
| Category 2 | | | | | |
| Category 3 | | | | | |
| Etc. | | | | | |
| | ----- | ----- | ----- | ----- | ----- |
| Subtotal | | | | | |
| Subcontractor A: | | | | | |
| Category 1 | | | | | |
| Category 2 | | | | | |
| Category 3 | | | | | |
| Etc. | | | | | |
| | ----- | ----- | ----- | ----- | ----- |
| Subtotal | | | | | |
| Subcontractor B: | | | | | |
| Category 1 | | | | | |
| Category 2 | | | | | |
| Category 3 | | | | | |
| Etc. | | | | | |
| | ----- | ----- | ----- | ----- | ----- |
| Subtotal | | | | | |
| Consultant A: | | | | | |
| Category 1 | | | | | |
| Category 2 | | | | | |
| Category 3 | | | | | |
| Etc. | | | | | |
| | ----- | ----- | ----- | ----- | ----- |
| Subtotal | | | | | |
| | ----- | ----- | ----- | ----- | ----- |
| Grand Total | ===== | ===== | ===== | ===== | ===== |

SUMMARY OF TRAVEL BY TASK AND OFFEROR'S FISCAL YEAR

| | | | | | |
|---------------|--------------------|------------------|-----------------------|------------------|--------------------|
| <u>Fiscal</u> | | <u>Roundtrip</u> | <u>Ground</u> | <u>Daily Per</u> | <u>Daily Car</u> |
| <u>Year</u> | <u>Destination</u> | <u>Airfare</u> | <u>Transportation</u> | <u>Diem Rate</u> | <u>Rental Rate</u> |

IN THIS SECTION, PROVIDE THE RATES USED TO CALCULATE AIRFARE, GROUND TRANSPORTATION, PER DIEM (WHICH INCLUDES SUBSISTENCE, MEALS AND INCIDENTAL EXPENSES) AND CAR RENTAL.

| | | | | | | | |
|-------------|---------------|--------------------|--------------------------|----------------|-----------------|---------------|---------------|
| | <u>Fiscal</u> | | <u>Total</u> | | <u>Total</u> | | <u>Total</u> |
| <u>Task</u> | <u>Year</u> | <u>Destination</u> | <u>Number of</u> | <u>Total</u> | <u>Total</u> | <u>Car</u> | <u>Travel</u> |
| | | | <u>Trips/People/Days</u> | <u>Airfare</u> | <u>Per diem</u> | <u>Rental</u> | <u>Cost</u> |

IN THIS SECTION, SHOW TOTAL COSTS FOR EACH OF THE TRAVEL COMPONENTS BASED ON USAGE OF THE RATES SHOWN ABOVE, I.E., THE NUMBER OF TRIPS AND PEOPLE AND DAYS APPLIED TO THE APPROPRIATE RATES ABOVE SHOULD RESULT IN THE TOTAL COSTS. THE TOTAL COST PER TASK SHOULD MATCH THE TRAVEL LINE ON THE EXHIBIT B-2 COST SUMMARIES.

SUMMARY OF OTHER DIRECT COSTS BY TASK AND OFFEROR'S FISCAL YEAR

| <u>Description of Cost</u> | <u>Number of Units/Hours/etc.</u> | <u>Rate per Unit/Hour/etc.</u> | <u>Total Cost</u> |
|----------------------------|---------------------------------------|------------------------------------|-----------------------|
|----------------------------|---------------------------------------|------------------------------------|-----------------------|

SPECIFY BOTH THE QUANTITY
AND THE MEASURE; FOR
EXAMPLE, 100 HOURS OR 2 DAYS.

\$
=====

THE TOTAL COST BY TASK SHOULD TIE INTO THE OTHER
DIRECT COSTS LINE ON THE EXHIBIT B-2 COST
SUMMARIES.

NOTE: THIS SAME FORMAT SHOULD BE USED TO IDENTIFY
ANY CONSULTANT COSTS PROPOSED. THE NUMBER OF
DAYS OR HOURS AND THE RATE CAN BE ITEMIZED FOR
EACH INDIVIDUAL CONSULTANT.

SUMMARY OF INDIRECT EXPENSES

| <u>Overhead Category</u> | Previous Fiscal Year Base Pool FY: _____ | Current Fiscal Year Base Pool FY: _____ | Next Fiscal Year Base Pool FY: _____ |
|--------------------------|--|---|--|
|--------------------------|--|---|--|

 IMPORTANT NOTES:

- (1) SUBMIT A SEPARATE EXHIBIT G-1 FOR EACH OF YOUR COMPANY'S INDIRECT COST POOLS.
 - (2) FOR EACH POOL, PROVIDE A BREAKDOWN BY EXPENSE ACCOUNT. SEE EXAMPLES ON THE FOLLOWING PAGES. EXAMPLES ARE PROVIDED SOLELY TO INDICATE AN ACCEPTABLE FORMAT FOR THIS EXHIBIT--DO NOT ATTEMPT TO CONFORM YOUR ACCOUNTS TO THOSE LISTED IN THE EXAMPLES.
-

Base for Allocation:

_____ \$ _____

OFFEROR'S FISCAL YEAR: Beginning:_____ Ending:_____

FOR EXAMPLE ONLY

SUMMARY OF INDIRECT EXPENSES

Overhead Category: Material Overhead

| | Previous Fiscal Year Base Pool | Current Fiscal Year Base Pool* | Next Fiscal Year Base Pool |
|----------------------------|-----------------------------------|-----------------------------------|-------------------------------|
| <u>Account Title</u> | <u>FY: 19xx</u> | <u>FY: 19xx</u> | <u>FY: 19xx</u> |
| Indirect Labor | \$ 823,833 | \$ 864,327 | \$ 1,125,500 |
| Additional Compensation | 31,000 | 4,392 | 41,225 |
| Overtime Premium | 5,010 | 5,263 | 5,500 |
| Holidays | 26,812 | 28,100 | 41,340 |
| Sick Leave | 20,768 | 22,018 | 33,750 |
| Suggestion Awards | 15 | 125 | 150 |
| Vacations | 43,607 | 45,734 | 56,250 |
| Maintenance - Outside | | | |
| Services | 165 | 192 | 200 |
| Other Outside Services | 78 | 76 | 75 |
| Payroll Taxes | 74,587 | 78,669 | 102,275 |
| Travel | 37,741 | 36,535 | 37,500 |
| Dues and Subscriptions | 651 | 651 | 651 |
| Pension Fund | 26,068 | 27,117 | 30,700 |
| Operating Supplies | 12,694 | 14,156 | 15,450 |
| Stationery, Printing, & | | | |
| Operating Supplies | 10,210 | 10,162 | 10,750 |
| Telephone | 19,184 | 20,322 | 21,500 |
| Heat, Light, and Power | 158,997 | 170,004 | 175,000 |
| Depreciation | <u>79,554</u> | <u>79,554</u> | <u>79,554</u> |
| Total Expense Pool (A) | \$ 1,370,974 | \$ 1,437,397 | \$ 1,777,370 |
| Allocation Base: | | | |
| Direct Materials (B) | \$25,878,940 | \$28,466,900 | \$31,313,600 |
| Material Overhead | | | |
| Rate (A) / (B) | 5.3% | 5.0% | 5.7% |

* Includes two months budgetary estimate.

OFFEROR'S FISCAL YEAR: Beginning: April 1 Ending: March 31

FOR EXAMPLE ONLY

SUMMARY OF INDIRECT EXPENSES

Overhead Category: Labor Overhead

| <u>Account Title</u> | <u>Previous Fiscal Year Base Pool FY: 19xx</u> | <u>Current Fiscal Year Base Pool* FY: 19xx</u> | <u>Next Fiscal Year Base Pool FY: 19xx</u> |
|------------------------|--|--|--|
| Indirect Payroll | \$ 264,909 | \$ 256,213 | \$ 260,000 |
| Payroll Taxes | 226,249 | 227,698 | 228,000 |
| Vacation | 118,710 | 119,872 | 120,000 |
| Holidays | 109,506 | 109,772 | 110,000 |
| Sick Leave | 49,962 | 50,013 | 50,000 |
| Pensions | 170,729 | 172,079 | 171,000 |
| Employee Morale | 4,073 | 4,987 | 5,000 |
| Office Equipment | 7,201 | 7,562 | 7,000 |
| Depreciation | 5,006 | 4,736 | 5,000 |
| Subscriptions | 1,397 | 1,488 | 1,500 |
| Travel | 20,557 | 19,724 | 22,000 |
| Miscellaneous | 1,513 | 1,987 | 2,000 |
| Stationery | 5,706 | 6,201 | 6,000 |
| Reproduction | 16,714 | 17,945 | 17,000 |
| Maintenance | 5,197 | 5,791 | 5,000 |
| Rent | 200,025 | 201,218 | 202,000 |
| Telephone | 10,538 | 10,712 | 11,000 |
| Insurance | <u>93,786</u> | <u>90,758</u> | <u>102,000</u> |
| Total Expense Pool (A) | \$1,311,778 | \$1,308,756 | \$1,324,500 |
| Allocation Base: | | | |
| Direct Labor (B) | \$2,398,541 | \$2,460,872 | \$2,336,000 |
| Labor Overhead | | | |
| Rate (A) / (B) | 54.7% | 53.2% | 56.7% |

* Includes two months budgetary estimate.

OFFEROR'S FISCAL YEAR: Beginning: April 1 Ending: March 31

FOR EXAMPLE ONLY

SUMMARY OF INDIRECT EXPENSES

Overhead Category: G&A Expense

| <u>Account Title</u> | Previous Fiscal Year Base Pool <u>FY: 19xx</u> | Current Fiscal Year Base Pool* <u>FY: 19xx</u> | Next Fiscal Year Base Pool <u>FY: 19xx</u> |
|------------------------|--|--|--|
| Payroll Taxes | \$ 54,909 | \$ 56,213 | \$ 56,800 |
| Officers' Salaries | 566,249 | 579,698 | 586,000 |
| Indirect Salaries | 1,407,100 | 1,458,724 | 1,460,500 |
| Interest | 63,506 | 63,772 | 60,500 |
| Vacation | 80,637 | 81,398 | 82,525 |
| Holidays | 49,962 | 50,013 | 49,500 |
| Sick Leave | 34,875 | 32,937 | 32,500 |
| Contributions | 15,743 | 13,289 | 15,000 |
| Pensions | 50,729 | 52,079 | 53,500 |
| Office Equipment | 30,541 | 27,942 | 26,750 |
| Depreciation | 30,557 | 29,724 | 29,000 |
| Travel | 62,513 | 64,987 | 67,000 |
| Miscellaneous | 30,706 | 41,201 | 43,250 |
| Legal Fees | 16,714 | 10,945 | 15,000 |
| Accounting Fees | 21,197 | 23,791 | 22,500 |
| Computer | 24,025 | 27,218 | 29,000 |
| Rent | 60,538 | 62,712 | 65,000 |
| Advertising | 13,786 | 10,758 | 12,500 |
| Telephone | 59,105 | 61,372 | 65,000 |
| Insurance | <u>13,844</u> | <u>15,473</u> | <u>15,500</u> |
| Total Pool | \$ 2,687,236 | \$ 2,764,246 | \$ 2,787,325 |
| Independent Research** | 932,940 | 826,842 | 920,000 |
| B&P | <u>743,902</u> | <u>526,209</u> | <u>700,000</u> |
| Total G&A Expenses | \$ 4,364,078 | \$ 4,117,297 | \$ 4,407,325 |
| Less unallowables: | | | |
| Interest | 63,506 | 63,772 | 60,500 |
| Contributions | 15,743 | 13,289 | 15,000 |
| Advertising | <u>13,786</u> | <u>10,758</u> | <u>12,500</u> |
| Total Unallowables | <u>\$ 93,035</u> | <u>\$ 87,819</u> | <u>\$ 88,000</u> |
| Net Allowable | | | |
| G&A Expenses (A) | \$ 4,271,043 | \$ 4,029,478 | \$ 4,319,325 |
| Allocation Base: | | | |
| Total Cost Input (B) | \$50,993,247 | \$52,932,479 | \$53,549,800 |
| G&A Rate (A) / (B) | 8.4% | 7.6% | 8.1% |

* Includes two months budgetary estimate.

** If there are advance agreements, the explanation should so reference. Latest actual and estimated program expenditures and allocation bases should be provided.

OFFEROR'S FISCAL YEAR: Beginning: April 1 Ending: March 31

SUMMARY OF PROPOSED INDIRECT RATES

| <u>Indirect Rate Category</u> | <u>Fiscal Year 19xx</u> | <u>Fiscal Year 19xx</u> | <u>Fiscal Year 19xx</u> |
|-------------------------------|---------------------------------|---------------------------------|---------------------------------|
|-------------------------------|---------------------------------|---------------------------------|---------------------------------|

NOTE: LIST ALL INDIRECT CATEGORIES
CONTAINED IN YOUR PROPOSAL (I.E.,
MATERIAL OVERHEAD, LABOR OVERHEAD,
FRINGE BENEFITS, G&A EXPENSE, ETC.)

IDENTIFY PERCENTAGES OR FACTORS: DO NOT LIST
DOLLAR AMOUNTS.

IF THE "NEXT FISCAL YEAR" RATE FROM EXHIBIT G-1 DIFFERS FROM RATES SHOWN ABOVE
COVERING THE ENTIRE PERIOD OF PERFORMANCE, THEN ADDITIONAL EXHIBIT G-1 EXPENSE
POOL AND ALLOCATION BASE DATA MUST BE PREPARED SO THAT ALL PROPOSED RATES
ARE FULLY SUPPORTED.

SUMMARY OF ESCALATION FACTORS/PERCENTAGES BY COST ELEMENT

| <u>Cost Element</u> | <u>Fiscal Year</u> | <u>Fiscal Year</u> | <u>Fiscal Year</u> |
|---|------------------------|------------------------|------------------------|
| <hr/> <div>NOTE: LIST EACH COST ELEMENT (I.E., MATERIALS, LABOR, TRAVEL, ETC.) THAT IS ESCALATED AND THE APPLICABLE RATE.</div> <hr/> | | | |
| <hr/> <div>IDENTIFY PERCENTAGES OR FACTOR: DO NOT LIST DOLLAR AMOUNTS.</div> <hr/> | | | |

PRE-AWARD ACCOUNTING SYSTEM SURVEY

This accounting system review is designed to determine the adequacy and suitability of a contractor's accounting system and practices for accumulating costs under the type of Government instrument to be awarded. The Offeror(s) and each subcontractor whose total proposed costs exceed \$100,000 shall complete the attached accounting system survey. The form should be completed and signed by an individual familiar with the capabilities of the organization's accounting system.

Does the Accounting System provide for:

YES

NO

1. Proper segregation of direct costs from indirect costs? ____ ____
2. Identification and accumulation of direct costs by contract?
Under a job order cost system, subsidiary cost records for each individual contract are generally available? ____ ____
3. A logical and consistent method for the allocation of indirect costs to intermediate and final cost objectives? ____ ____
4. Accumulation of costs under general ledger control? ____ ____
5. A timekeeping system that identifies employees' labor by intermediate or final cost objectives? ____ ____
6. A labor distribution system that charges direct and indirect labor to the appropriate cost objectives? ____ ____
7. Interim (at least monthly) determination of costs charged to a contract through routine posting of books of account? ____ ____

8. Exclusion from costs charged to Government contracts of amounts which are not allowable pursuant to FAR Part 31, Contract Cost Principles and Procedures, or other contract provisions? ____ ____
9. Identification of costs by contract line item if required by the proposed contract? ____ ____

PRINTED NAME

AND TITLE:_____

SIGNATURE:_____DATE:_____

**U.S. DEPARTMENT OF ENERGY (DOE)
NATIONAL PETROLEUM TECHNOLOGY OFFICE (NPTO)
(Formerly Bartlesville Project Office)**

ENVIRONMENTAL ASSESSMENT QUESTIONNAIRE

I. PROJECT DESCRIPTION

Solicitation No. _____

Program Area _____

Proposer _____

Principal Investigator _____

Project Title _____

Project Duration _____

Where appropriate, indicate "N/A" for "Not Applicable." If however, you are asked to provide quantities on a list of items and there will be none, indicate "None". For projects which are exclusively paper studies or library/literature searches or involve laboratory analysis activities, but not field activities, only Sections I and III of this Environmental Assessment Questionnaire are required.

II. ENVIRONMENTAL IMPACTS

1. Provide a local area map with the site location marked and a project site plan with topographic lines.

2. Project Location:

City: _____

County: _____

State: _____

3. Present usage of project site (e.g., industrial, commercial)

4. Will the proposed project cause a change in the land use practices at the site or in the local area of the site?

____ Yes ____ No

If yes, explain how? _____

5. Is the site an, [] attainment, [] non-attainment area as designated by EPA under the National Ambient Air Quality Standards?

6. What authority (please name federal, state, and local) regulates the air quality in the project area?

7. List the contact person, address, and telephone number for each cognizant agency in 6. above.

8. Describe the local climate. _____

9. What type and quantity of air emissions are anticipated from the project? _____

10. What laws regulate air emissions in the project area (please identify federal, state, and local)?

11. What types and quantity of non-toxic, non-hazardous solid wastes are expected to be produced by the project?

12. What disposal methods will be used? _____

13. What authority regulates your solid waste disposal (please identify federal, state, and local)?
List contact person, telephone number, and address for each. _____

14. Is the proposed site in a flood plain? ☐ Yes ☐ No

If yes, give elevations of 100 and 500 year floods. _____

15. Is the proposed project in or near a wetland? ☐ Yes ☐ No

If yes, please identify. _____

16. What body of water, i.e., river, lake accept storm water run-off from the proposed site?

17. Will the project require diverting a flowing body of water or alter drainage patterns?

___ Yes ___ No

If yes, please describe. _____

18. Is storm water run-off regulated? ___ Yes ___ No

If yes, by whom? List contact person, telephone number, and address. _____

19. What authorities regulate water quality in the project area (please identify federal, state, and local)? List contact person, telephone number, and address for each. _____

20. Please identify any known faulting in the project area. _____

21. Please describe the soil type and productivity at the project site. _____

22. Describe the indigenous flora and fauna in the project area. _____

23. What state/federal listed threatened or endangered species are in the project area?

24. What is the population in the project area? _____

25. What are the personnel requirements for the project? _____

26. Are these personnel available locally? ☐ Yes ☐ No

If no, how many new personnel will the project bring to the area. _____

27. Name any places registered on the National Register of Historic Places, on or near the project site.

28. Describe any archaeologically significant findings on or near the project site.

29. Has there been a historical or archeological survey of the project site?

☐ Yes ☐ No

If yes, by whom? _____

30. What RCRA or TSCA listed hazardous/toxic substances will be used in the project? _____

31. Describe your permitting and disposal system for the wastes listed in 30 above. _____

32. Describe any increases in ambient noise levels, odors, or thermal energy releases. _____

33. Describe any scenic vistas or aesthetic landscapes in the project area. _____

34. What water resources are required by the project? _____

III. CERTIFICATION

I hereby certify that the information provided herein is current, accurate and complete as of the date shown immediately below.

DATE: ____ / ____ / ____
 month day year

SIGNATURE: _____

TYPED NAME: _____

TITLE: _____

ORGANIZATION: _____